

EPA Region 5 Records Ctr.



207530

FINAL
SOUTHEAST ROCKFORD OPERABLE UNIT
REMEDIAL INVESTIGATION
TECHNICAL MEMORANDUM

PREPARED FOR:

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND POLLUTION CONTROL
REMEDIAL PROJECT MANAGEMENT SECTION
FEDERAL SITE MANAGEMENT UNIT
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SEPTEMBER 1990

COPY

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1.0 INTRODUCTION

Groundwater sampling programs by the Illinois Department of Public Health (IDPH), the United States Environmental Protection Agency (USEPA), and the Illinois Environmental Protection Agency (IEPA) have established that a major groundwater contamination problem exists in the southeast section of Rockford, Illinois. Previous studies have shown that a plume of Volatile Organic Compound (VOC) contaminated groundwater traverses an area where local residents rely on well water for a potable water source. In response to this threat to public health, IEPA and USEPA are currently involved in a joint effort to remedy the problem by identifying affected residents and providing them with an alternative water source. USEPA is currently constructing new water lines and connecting affected residents to existing water lines to provide city water to all residents in the core of the VOC plume.

IEPA is currently conducting a two-part investigation of the area, consisting of an Operable Unit remedial investigation to address immediate threats to public health on the margins of the plume, and a more comprehensive remedial investigation/feasibility study (RI/FS) to address long-term remediation of the contamination problem. During June 1990, Camp Dresser & McKee (CDM), under the direction of IEPA, conducted a groundwater sampling investigation of the area in order to identify affected residents on the margins of the plume, as part of the Operable Unit remedial investigation. In this Technical Memorandum, the results of this Operable Unit remedial investigation are presented and synthesized with existing data to summarize the current status of groundwater contamination in the Southeast Rockford area.

1.1 PURPOSE OF MEMORANDUM

The purpose of this Technical Memorandum is to document and present the results of the IEPA Operable Unit remedial investigation that took place in June 1990. The report is organized in four sections. In the first section, general information about the site, such as site geology,

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physiography, and history is summarized. In the second section, the field techniques employed during the investigation are discussed. In the third section, the results of the groundwater sampling are presented. In the fourth section, the risks to public health are discussed. Following these sections, the conclusions of the study are summarized. This document is intended to provide the technical background to support the Feasibility Study (FS) and Record of Decision (ROD). Other aspects of the groundwater contamination problem in southeast Rockford, such as identifying source areas, predicting contaminant migration pathways, and assessing the impact on the environment, will be addressed in the full-scale RI/FS, which is currently in the planning stage.

1.2 STUDY AREA BACKGROUND

During the course of planning and conducting the Southeast Rockford Operable Unit, previous studies, available literature, and other pertinent information were reviewed. In the following sections, a summary of this review is presented.

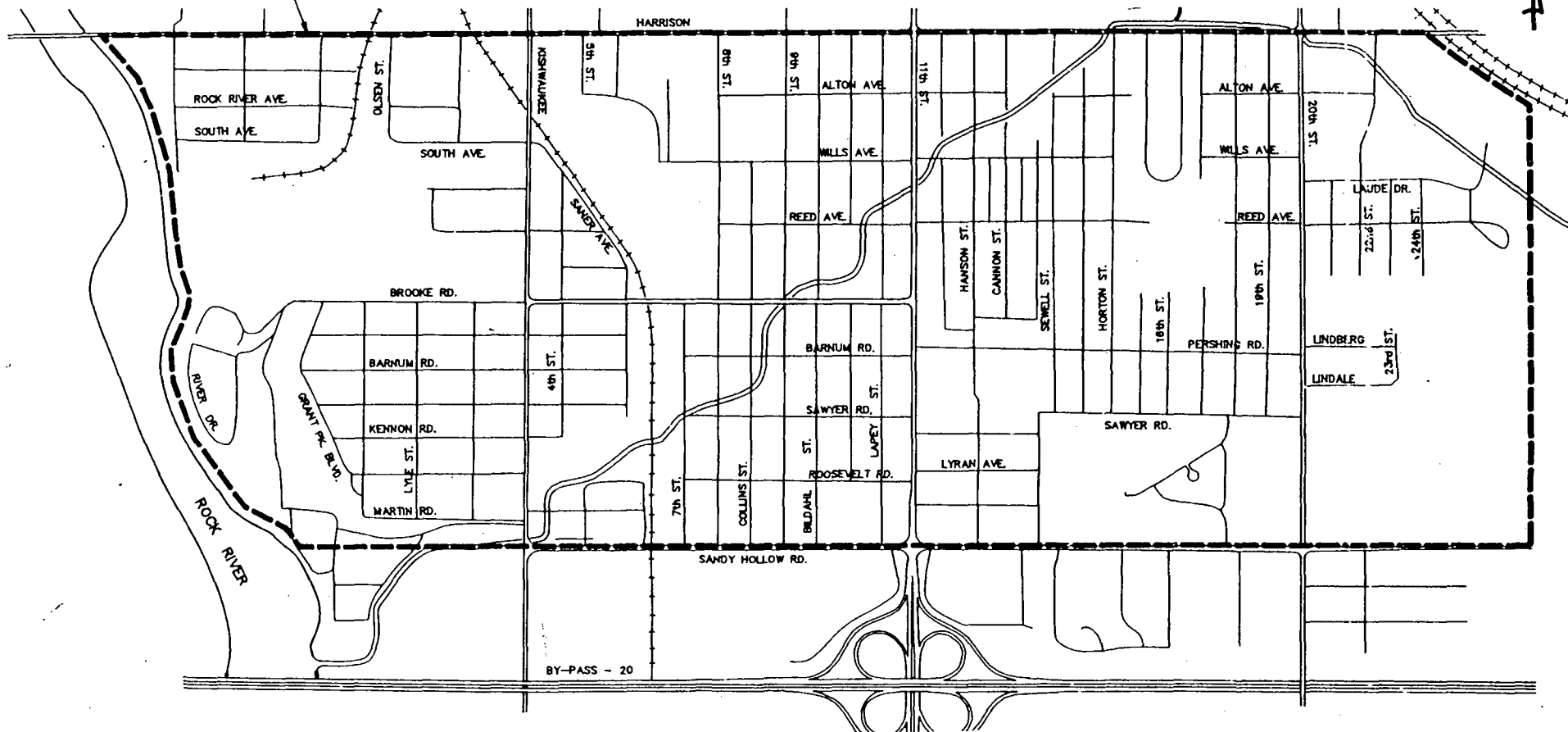
1.2.1 STUDY AREA LOCATION

The study area is located near Southeast Rockford in Winnebago County, and consists of approximately 2.4 square miles in Sections 1, 2, and 3, T43N, R1E and Section 6, T43N, R2E. The study area is bounded by Harrison Avenue to the North, Sandy Hollow Road to the South, the north-south center line of Section 6 to the East, and the Rock River to the West. The study area is shown in Figure 1-1.

The study area has been expanded from the boundaries used to score the site for inclusion on the National Priorities List. The site was originally bounded by 8th Street to the West, Sawyer Road to the South, 21st Street to the East and Harrison Avenue to North.

STUDY AREA
BOUNDARY

N



CDM

environmental engineers, scientists,
planners, & management consultants

SCALE:



SOUTHEAST ROCKFORD
STUDY AREA

FIGURE NO.

1-1

1.2.2 STUDY AREA DESCRIPTION

The study area is predominantly an urban residential area, which includes scattered industrial, retail and commercial operations. A small industrial park is located near the eastern edge of the study area in the vicinity of Laude Drive. Other industrial areas are situated in the vicinity of Harrison Street and Eighth Street, near the Rock River in the northwest part of the study area, and elsewhere in the study area.

The study area is predominantly flat-lying and slopes gently westward towards the Rock River, but locally contains low-relief hilly areas. Maximum topographic relief across the study area is approximately 120 feet. A small concrete-lined drainage ditch runs across the study area and discharges to the Rock River in the southwest corner. A review of 117 IDPH Well Construction Reports establishes that the majority of the residential wells in the study area are screened in the 40-foot to 70-foot range in a sand and gravel aquifer. Although deeper residential wells are common in the study area, no systematic distribution of the deeper wells is evident.

1.2.3 GEOLOGIC SETTING

The local geology of the study area consists of a valley-train deposit that fills an eroded pre-glacial drainageway. The valley-train deposit forms a wedge of unconsolidated sand and gravel deposits that are interbedded with laterally discontinuous clay- and silt-rich strata. These unconsolidated sediments unconformably overlie eroded bedrock of Ordovician age. Depending on location, the sediments overlie the Galena-Platteville Group or the St. Peter Sandstone, the latter of which is an important aquifer in northern Illinois.

Within the study area, the unconsolidated sediments increase in thickness to the West towards the Rock River. Based on well logs from Municipal Well 35 (located at 2944 Bildahl) and IEPA monitoring wells from Barrett's Mobile Home Park (in the vicinity of Harrison and Marshall), the uncon-

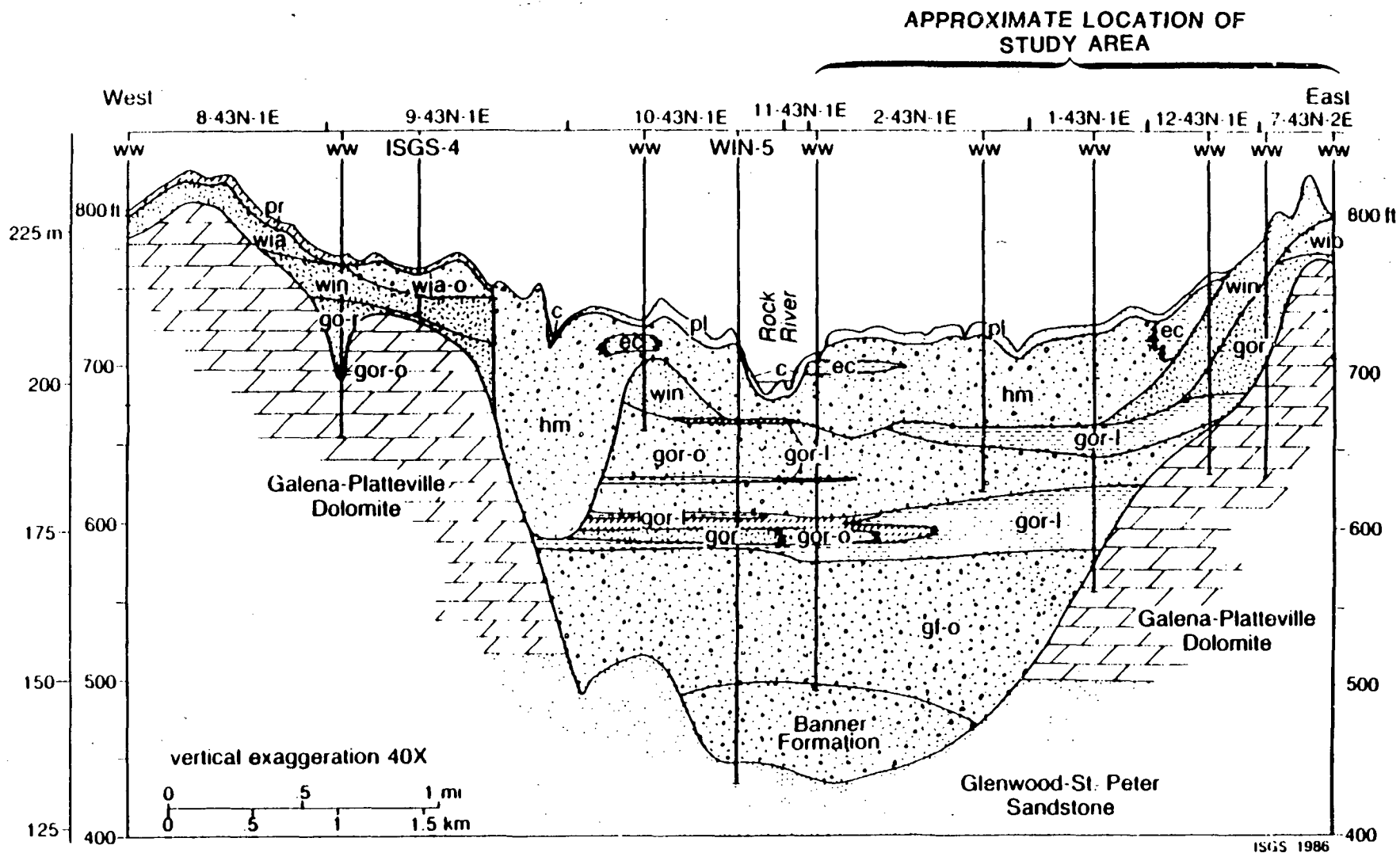
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solidated sediments are expected to range in thickness from approximately 50 to 250 feet in the study area. The unconsolidated sedimentary wedge is schematically illustrated in the cross section in Figure 1-2. This cross section is from a report by Wehrmann et al. (1988) on the groundwater quality in the Rockford area, and is based on well logs from locations near the study area.

The Galena-Platteville is a carbonate sequence composed predominantly of fractured and jointed dolomite in the study area. In northern Illinois, the combined thickness of the Galena and Platteville Groups can range as high as approximately 400 feet (Willman et al. 1975), but erosional truncation of the unit can cause abrupt lateral changes in thickness. Although the Galena-Platteville is not a major aquifer in northern Illinois, the unit is water-bearing and is used for water supply wells in some areas.

The Glenwood Formation, which is the lowermost member of the Galena-Platteville, is a unit of varying lithology that separates the upper members of the Galena-Platteville from the St. Peter. In some parts of northern Illinois, the unit is shaly, and may act locally as an aquitard. The Glenwood Formation thins in the vicinity of Rockford, and may not be present in the study area. If present in the study area, fracturing of shale and dolomite members of the formation or a facies change to sandstone could reduce the likelihood that the Glenwood Formation would act as an aquitard.

The Glenwood Formation overlies the St. Peter Sandstone, which is a friable, medium-grained, pure quartz sandstone. In northern Illinois, the St. Peter can locally reach thicknesses of up to 700 feet, but thicknesses on the order of 300 feet are anticipated in the study area (Willman et al. 1975). The unit is an important aquifer in northern Illinois, and several of the City of Rockford's municipal water supply wells derive potable water from the St. Peter.



SOURCE : H. A. Wehrmann, et. al., September 1988

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environmental engineers, scientists,
planners, & management consultants

**EAST/WEST CROSS-SECTION OF
UNCONSOLIDATED SEDIMENTARY
WEDGE IN VICINITY OF STUDY AREA**

FIGURE NO.

1-2

SYMBOL	UNIT	LITHOLOGY
wia	Argyle	pinkish or buff-tan; often friable sandy till
win	Nimtz	gray-brown or buff; often compact sandy or sandy loam till
wib	Beaver Creek Sand	sand and gravel outwash
ge	Esmond	grayish brown silty clay till
gor	Oregon	pinkish brown or buff sandy loam till
gf	Fairdale	yellowish brown sandy loam till
gk	Kellerville	brown clay loam to silt loam till
—	Locustrine	fine-grained sediments associated with a specific till
—O	Outwash	sand and gravel deposits associated with a specific till
c	Cahokia Alluvium	sand, silt, and clay deposited by modern rivers and streams
pl	Parkland Sand	windblown (eolian) sand
pr	Peoria Loess and Roxana Silt	windblown (eolian) silt
hm	Henry Formation	Mackinaw Member sand and gravel
ec	Equality Formation	Carmi Member lake silts and clays



till



lacustrine silt-clay



outwash sand and gravel



lacustrine sandy silt-sandy clay



lacustrine clay



organic materials or buried soil

TD — total depth

WIN # — ISGS test boring

ww — water well boring

TB — tollway boring

NOTE

The Banner Formation is a lower Quaternary glacial formation consisting primarily of till and intercalated sands, silts, and gravels, which are of Yarmouthian age. (Wilman, 1975)

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LEGEND FOR GEOLOGIC CROSS SECTION

FIGURE NO.
1-2
Cont'd

The St. Peter Sandstone unconformably overlies the Prairie du Chien, Eminence-Potosi, and Franconia Formations, which are dominantly composed of sandy and argillaceous dolomites. Together these units act as a confining unit which is termed the 'middle confining unit' in Illinois State Geological Survey (ISGS) Co-op Groundwater Report 10. In the vicinity of the study area, the middle confining unit is expected to be approximately 100 feet thick (ISGS, 1985).

The geologic section from the base of the St. Peter to the surface may contain no aquitards in the study area. It is possible, therefore, that hydraulic communication could form a pathway for contaminant migration from the unconsolidated sediments to the Galena-Platteville and St. Peter Sandstone.

1.2.4 STUDY AREA HISTORY AND PRIOR INVESTIGATIONS

Groundwater contamination by volatile organic compounds (VOCs) was initially discovered in the study area by the City of Rockford in 1981. Four municipal wells in Southeast Rockford were taken out of service in December 1981 as a result of the contamination. In 1982, the city discovered that additional wells were contaminated and subsequently closed down more city wells. Contamination of Municipal Well 35, located near Ken Rock Playground (Bildahl Street and Reed Avenue), was discovered during a routine sampling of the well in 1984; the well was tested for 33 priority pollutants and several VOCs were detected.

Because contaminants were present at levels above the Safe Drinking Water Act Maximum Contaminant Level (MCL), the well was taken out of service in 1985. Subsequent analysis of a sample from this municipal well after disinfection with chlorine in 1989 indicated that none of the original contaminants were present above the level of detection; however, the analysis did show the presence of several trihalomethanes at low levels. These compounds are commonly associated with water disinfection and are not attributable to the groundwater contamination problem in the area. Tri-

halomethanes are regulated under the Safe Drinking Water Act, but do not warrant concern for this study because they were detected at levels significantly lower than the MCL.

IEPA discovered that VOCs were present in Southeast Rockford's water in 1984 as a result of a report that plating wastes were being illegally disposed of in a well located at 2613 South 11th Street. In October 1984, IDPH initiated an investigation that involved sampling 49 wells in the vicinity of the well. While the investigation did not find significant levels of contaminants common to plating wastes, it did report high levels of chlorinated solvents. These same contaminants were detected in the City of Rockford's municipal well.

IDPH conducted four separate sampling investigations involving residential wells in the Southeast Rockford area: 49 samples were collected in 1984, 43 samples in 1985, 17 in 1988, and 267 in 1989. For the most part, sample locations varied during the separate sampling investigations; however, in some cases, wells were sampled more than once.

In 1986, the Illinois State Water Survey (ISWS) completed a project that involved a regional characterization of groundwater quality in Rockford. The study indicated that groundwater samples from public and private wells in the Southeast Rockford area contained significant concentrations of VOCs. Seven private well sites sampled in the Southeast Rockford area as part of the study contained greater than 10 ug/l total VOCs; and 5 of those 7 contained greater than 100 ug/l total VOCs. One of the private wells containing greater than 100 ug/l total VOCs was located near the Rock River (Wehrmann, 1988).

In August and October 1989, the USEPA Technical Assistance Team (TAT) sampled 112 residential wells in the Southeast Rockford area and tested for the following abbreviated list of VOCs:

- o Trichloroethylene,
- o Cis-1,2-Dichloroethylene,
- o 1,2-Dichloroethane,
- o 1,1,1-Trichloroethane,
- o Trans-1,2-Dichloroethylene, and
- o 1,1-Dichloroethane.

Fourteen of the 112 samples were analyzed using gas chromatograph/mass spectroscopy (GC/MS) for the above compounds and for 24 additional VOCs. The contaminants detected in the USEPA/TAT study correlate with the full volatile scan IDPH data, indicating that the VOC contaminants of concern in the study area consist of the chlorinated solvents listed above, as well as 1,1-Dichloroethene and Tetrachloroethene.

Metals have been analyzed in only a limited number of samples in the Southeast Rockford Operable Unit study area. Chromium was detected by IEPA in a 1984 investigation of illegal disposal of plating wastes in a well located at 2613 South 11th Street. Detailed information from this investigation is not available. Cadmium and lead were detected at levels in excess of the MCL in groundwater at Barrett's Mobile Home Park (located at Harrison and Marshall) in 1988 during a routine IEPA investigation of community water supply wells. In the same study, arsenic was detected in one well at a concentration of 25% of the MCL for arsenic.

As a result of the sampling events by state and federal agencies, the Southeast Rockford site was proposed for inclusion on the NPL in June 1988 and was added to the National Priorities List (NPL) in March 1989 as a state-lead, federally funded Superfund site. A removal action by USEPA, which is currently in progress, includes extending water mains and providing hookups to city water for residences with private wells contaminated with VOCs at levels greater than 25 percent of the Removal Action Limit (RAL). USEPA began construction of the water main extensions and residential hookups in June 1990.

2.0 STUDY AREA INVESTIGATION

The study area investigation for the Operable Unit did not involve geological investigations, human population surveys, or ecological investigations. Therefore, this memorandum addresses only those activities associated with the groundwater investigation.

2.1 OVERVIEW OF WELL SAMPLING

During the ten-day period spanning June 11 to June 20, 1990, a total of 117 residential, non-residential, and municipal groundwater wells were sampled for a target list of volatile organic and inorganic (metals) analyses by CDM under contract with IEPA. Volatile organics analyzed for in this investigation included trichloroethene (TCE), 1,1,1-trichloroethane (1,1,1-TCA), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), 1,2-dichloroethane (1,2-DCA), 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), tetrachloroethene (PCE), and vinyl chloride. Metals analyzed for included arsenic, cadmium, chromium and lead.

Several criteria were used to select locations for the samples collected during the IEPA Operable Unit investigation. These factors are discussed in detail in Section 3.4 of the Operable Unit Work Plan, and are summarized below. The primary objective of the sampling effort was to identify residential wells that are contaminated at levels between the Safe Drinking Water Act Maximum Contaminant Level (MCL) and the method detection limit for any of the contaminants analyzed. Because the area contaminated at levels above the MCL for TCE (5 ppb) encompassed the areas where MCLs were exceeded for any other contaminant, the area inside the 5 ppb contour line as defined by USEPA and IDPH data was excluded from further IEPA sampling. It was assumed that groundwater contamination at levels in excess of the MCL had been verified by previous studies within the 5 ppb contour. The 5 ppb TCE contour lines for USEPA and IDPH data do not coincide because of

7
4
data incompatibilities between the two data sets. To compensate for this disparity in reported concentrations, the outermost of the IDPH and USEPA 5 ppb contours was used as the area from which further samples were excluded, as a worst-case approach.

In the area outside the 5 ppb TCE contour, the primary criteria used for selection of sample points were sample density and sample availability. Sample locations were chosen based on existence of data gaps, presence of private wells, and results of previous sampling episodes. In all areas outside the 5 ppb TCE contour, a target sample density of 1 to 2 samples per block was chosen. In some areas, field conditions (lack of private wells) precluded collecting one sample per block, as discussed below.

A total of 117 investigative samples were collected during the June 1990 sampling event. These samples included 106 residential wells, 10 non-residential wells, and 1 municipal well. Exact addresses for targeted sample locations were determined based primarily on an IEPA survey of water use by area residents, and on address maps supplied by the City of Rockford. Table 2-1 lists sampling locations that were targeted using these sources in the Operable Unit Work Plan. Because of inaccuracies and uncertainties in both the IEPA well survey and the address maps, it was not possible to sample all of the locations targeted in the Work Plan. In many cases, alternate sample locations were selected in the field, and in other cases no sample was collected due to an absence of appropriate alternates. The lack of suitable sample locations stemmed from the prevalence of city water or other factors. Locations that were actually sampled as a part of this Operable Unit investigation are listed in Table 2-2. Locations that were originally targeted for sampling but could not be sampled are presented in Table 2-3 along with the reasons that samples could not be collected.

Table 2-1
Sample Locations Targeted in
Operable Unit Work Plan

Street	Address	Street	Address	Street	Address
4th	2805	Barnum	505	Kishwaukee	3336
4th	2820	Barnum	611	Lapey	3013
4th	2917	Barnum	825	Lapey	3038
4th	3011	Bildahl	3009	Lapey	3137
4th	3045	Bildahl	3017	Lapey	3213
5th	2604	Bildahl	3038	Lapey	3230
7th	3115	Bildahl	3122	Lapey	3325
7th	3221	Bildahl	3141	Lindale	2406
7th	3305	Bildahl	3206	Lindale	2620
7th	3337	Bildahl	3302	Lindberg	2412
8th	2914	Bildahl	3338	Lindberg	2619
8th	3009	Brooke	106	Lyran	1616
8th	3109	Brooke	202	Lyran	1701
8th	3138	Brooke	326	Marshall	3125
8th	3201	Brooke	411	Marshall	3137
8th	3237	Brooke	430	Martin	430
8th	3301	Brooke	613	Martin	508
8th	3337	Brooke	823	Martin	618
9th	2624	Brooke	914	Mattis	827
9th	2730	Brooke	1101	Olsen	2812
9th	2808	Brooke	1202	Pershing	1637
9th	2842	Brooke	1317	Pershing	1726
9th	2927	Collins	2801	Ranger	801
9th	3102	Collins	2825	River Blvd.	3007
9th	3210	Collins	3029	River Blvd.	3117
9th	3245	Collins	3109	River Blvd.	3125
10th	2627	Collins	3126	Rock Riv. Ave	508
10th	3110	Collins	3245	Roosevelt	843
11th	2613	Collins	3310	Sandy Hollow	728
11th	2955	Fitch	407	Sandy Hollow	826
11th	3015	Fitch	507	Sandy Hollow	1202
11th	3119	Fitch	601	Sandy Hollow	1306
11th	3208	Fitch	807	Sandy Hollow	1820
11th	3215	Grant	3045	Saner	2905
11th	3301	Grant	3107	Saner	3011
11th	3329	Hamilton	1735	Saner	3110
15th	3135	Harrison	733	Sawyer	319
16th	3102	Harrison	1001	Sawyer	407
16th	3122	Harrison	1713	Sawyer	525
17th	2602	Harrison	1817	Sawyer	615
17th	3120	Harrison	2315	Sewell	2622
17th	3141	Johnson	1737	Sewell	2646
18th	3110	Kennon	315	Sewell	3137
19th	2622	Kennon	415	South	527
20th	2703	Kennon	517	South	619
20th	2717	Kennon	621	Taft	801
20th	3109	Kishwaukee	3037	Municipal Well 35	
Barnum	305	Kishwaukee	3112		
Barnum	409	Kishwaukee	3302		

Table 2-2
Summary of Locations Sampled

Street	Address	C-O-C Date	Comments
4th	2819	11-Jun	Alt. for 2805 4th
4th	2828	11-Jun	Alt. for 2917 4th
4th	2901	12-Jun	Alt. for 3011 4th
4th	3045	14-Jun	
5th	2624	15-Jun	Alt. for 2604 5th
7th	3115	15-Jun	
7th	3233	13-Jun	Alt. for 3221 7th
7th	3309	14-Jun	Alt. for 3305 7th
8th	2810	14-Jun	Alt. for 2834 8th
8th	2914	14-Jun	
8th	3022	17-Jun	Alt. for 3013 8th
8th	3109	18-Jun	
8th	3138	18-Jun	
8th	3201	13-Jun	
8th	3237	13-Jun	
8th	3301	13-Jun	
8th	3337	13-Jun	
9th	2910	14-Jun	Alt. for 2929 9th
9th	3101	18-Jun	Alt. for 3102 9th
9th	3210	15-Jun	
9th	3245	14-Jun	
10th	3110	14-Jun	
16th	3102	13-Jun	
16th	3122	13-Jun	
17th	3120	13-Jun	
18th	3110	14-Jun	
20th	2703	18-Jun	
20th	3109	18-Jun	
Barnum	505	20-Jun	
Barry	426	18-Jun	Alt. for 415 Kennon
Bildahl	3017	19-Jun	Alt. for 3005 Bildahl
Bildahl	3038	15-Jun	
Bildahl	3122	16-Jun	
Bildahl	3141	15-Jun	
Bildahl	3206	16-Jun	
Bildahl	3302	15-Jun	
Bildahl	3338	15-Jun	
Brooke	110	18-Jun	Alt. for 106 Brooke
Brooke	202	12-Jun	
Brooke	326	12-Jun	
Brooke	409	12-Jun	Alt. for 411 Brooke
Brooke	823	12-Jun	
Brooke	1202	15-Jun	
Brooke	1317	15-Jun	
Collins	2801	13-Jun	
Collins	3029	14-Jun	

• C-O-C = Chain of Custody

Table 2-2 cont.
Summary of Locations Sampled

Street	Address	C-O-C Date	Comments
Collins	3126	16-Jun	
Collins	3245	14-Jun	
Collins	3310	13-Jun	
Grant	3045	16-Jun	
Grant	3107	18-Jun	
Hamilton	1630	18-Jun	Alt. for 3208 11th
Hamilton	1735	11-Jun	
Harrison	1713	15-Jun	
Harrison	1817	18-Jun	
Harrison	2315	13-Jun	
Horton	3129	15-Jun	Extra Sample Point to Improve Sample Density
Johnson	1737	11-Jun	
Kennon	410	19-Jun	Alt. for 315 Kennon
Kennon	621	19-Jun	
Kishwaukee	3037	19-Jun	
Kishwaukee	3202	15-Jun	Alt. for 3112 Kishwaukee
Kishwaukee	3239	14-Jun	Extra Sample Point to Improve Sample Density
Kishwaukee	3302	14-Jun	
Lapey	3013	19-Jun	
Lapey	3101	16-Jun	Alt. for 3038 Lapey
Lapey	3138	16-Jun	Alt. for 3137 Lapey
Lapey	3213	15-Jun	
Lapey	3230	14-Jun	
Lapey	3329	14-Jun	Alt. for 3325 Lapey
Lindale	2406	13-Jun	
Lindale	2620	12-Jun	
Lindberg	2412	12-Jun	Alt. for 2406 Lindberg, Which Does Not Exist
Lindberg	2619	14-Jun	
Lyran	1617	11-Jun	Alt. for 1616 Lyran
Lyran	1701	12-Jun	
Marshall	3106	14-Jun	Alt. for 3125 Marshall
Marshall	3137	15-Jun	
Martin	430	13-Jun	
Matis	827	12-Jun	
New Milford	608	18-Jun	Alt. for 733 Harrison
Olsen	2820	12-Jun	Alt. for 2812 Olsen
Pershing	1637	15-Jun	
Pershing	1726	15-Jun	
Ranger	801	12-Jun	
River Blvd.	3007	12-Jun	
River Blvd.	3117	18-Jun	
River Blvd.	3110	19-Jun	Alt. for 3125 River Blvd.
Rock Riv. Ave.	508	12-Jun	
Roosevelt	841	18-Jun	Alt. for 843 Roosevelt
Sandy Hollow	728	16-Jun	
Sandy Hollow	810	18-Jun	Alt. for 826 Sandy Hollow

• C-O-C = Chain of Custody

Table 2-2 cont.
Summary of Locations Sampled

<i>Street</i>	<i>Address</i>	<i>C-O-C Date</i>	<i>Comments</i>
Sandy Hollow	1202	18-Jun	
Sandy Hollow	1306	13-Jun	
Sandy Hollow	1812	13-Jun	Alt. for 1820 Sandy Hollow
Saner	2905	12-Jun	
Saner	3014	19-Jun	Alt. for 3011 Saner
Saner	3110	15-Jun	
Sawyer	319	13-Jun	
Sewell	2646	19-Jun	
Sewell	3135.5	15-Jun	Alt. for 3137 Sewell
South	619	12-Jun	
Taft	804	18-Jun	Alt. for 801 Taft

Non-residential Wells

<i>Street</i>	<i>Address</i>	<i>C-O-C Date</i>	<i>Comments</i>
8th	2647	18-Jun	Estwing Manufacturing — Non Potable
11th	2613	18-Jun	Rockford Cylinder Gas — Potable
11th	2955	11-Jun	Tussing Tile & Flooring — Potable
11th	3015	12-Jun	Smith Auto Repair — Potable
11th	3119	12-Jun	Goodyear Tire Co. — Potable
11th	3237	15-Jun	McDonald's Restaurant — Potable
11th	3329	15-Jun	Pizza Hut Restaurant — Potable
17th	2602	13-Jun	East Rockford Collision Center — Non Potable
Bildahl	2944	19-Jun	Municipal Well 35 — Not In Use
Brooke	1101	19-Jun	Kincade's Service Station — Potable
Collins	3109	16-Jun	Corcoran's Body Shop — Potable
Energy Ave.	123	14-Jun	Commonwealth Edison — Non Potable
Harrison	707	19-Jun	Rockford Products — Non Potable
Kishwaukee	3333	18-Jun	Rock River Reclamation Dist. — Non Potable

• C-O-C = Chain of Custody

Table 2-3
Summary of Locations From Which Samples
Could Not Be Collected

<i>Street</i>	<i>Address</i>	<i>Comments</i>
6th	2628	No Such Number, No Alternate Wells Available
7th	3337	No Wells Available
9th	2624	No Wells Available
9th	2730	Hook-up to Existing Water Line Planned by USEPA
9th	2808	Hook-up to Existing Water Line Planned by USEPA
9th	2845	Hook-up to Existing Water Line Planned by USEPA
10th	2629	No Wells Available
11th	3301	Skipped Because of Proximity to Other Samples
15th	3133	No Wells Available
17th	3141	Well Hit by Lightning — No Appropriate Alternate Available
19th	2622	City Water, No Appropriate Alternates Available
20th	2713	House Abandoned — Well Not Operational
Barnum	311	No Wells Available
Barnum	409	No Wells Available
Barnum	611	No Wells Available
Barnum	825	No Wells Available
Bildahl	2947	No Wells Available
Brooke	430	No Wells Available
Brooke	613	No Wells Available
Brooke	914	No Wells Available
Fitch	407	No Wells Available
Fitch	503	No Wells Available
Fitch	601	No Wells Available
Fitch	807	No Wells Available
Kennon	517	No Wells Available
Martin	508	No Wells Available
Martin	618	No Wells Available
Saner	2819	Skipped Because of Proximity to Other Samples
Sawyer	407	No Wells Available
Sawyer	525	No Wells Available
Sawyer	615	No Wells Available
Sewell	2622	No Wells Available
South	605	No Wells Available

2.2 WELL SAMPLING PROTOCOL

Well sampling was conducted by teams of two persons who recorded data on Sample Collection Sheets (Appendix A) and in Field Notebooks (Appendix B). Sampling typically began with verification of information such as resident's name and address, as well as relevant details about the well and the sample point. Whenever possible, the well and its waterlines were visually inspected to confirm the absence of a water softener, to note the presence of PVC pipes and other details of well construction, and to ensure that the point of sample collection was located as close as possible to the well. Information provided by the resident was used in cases where visual inspection of the well system was not possible or was not allowed.

In order to ensure that a representative groundwater sample was collected, standing water from the well and plumbing system was purged by running the sample point faucet at full volume for a minimum of 10 to 15 minutes. After a minimum of 10 minutes, the pH, temperature, and conductivity of the purge water was measured at 1 to 2 minute intervals. The purge was considered adequate when three consecutive measurements of pH, temperature, and conductivity fell within the ranges specified on the Sample Collection Sheets (Appendix A). Purge rate was measured by noting the time required to fill a container of known volume, and both purge rate and total purge time were noted on the Sample Collection Sheets.

After adequate purging (generally 15-20 minutes), the flow rate was reduced to a trickle to minimize disturbance to the sample water, and a sample for Volatile Organic Analysis (VOA) was collected in an appropriate number of 40 ml vials. The VOA vials were carefully checked for air bubbles and were retaken if any bubbles were detected. Next, flow rate was increased and the sample for metals analysis was collected in one 1-liter polyethylene bottle. Faucet aerators and hoses were removed prior to sample collection. Surgical gloves were worn at all times during sample collection and were changed frequently at each sample location. The VOA vials were placed in a sealable plastic bag and placed with the metals samples in an ice-bearing

cooler. The samples were then taken to the CDM trailer where the samples for metals analysis were preserved with nitric acid (supplied by IEPA) and checked with pH paper to verify that solution pH was less than 2; VOA samples were not chemically preserved. In the trailer, the paperwork team completed the necessary sample handling and documentation in accordance with USEPA Region V procedures. Finally, the samples were packed following USEPA protocol and shipped by overnight carrier (Federal Express) to the appropriate laboratories for analysis: organic samples were sent to S-Cubed in San Diego, California and the inorganic samples were sent to Centec Analytical Services in Salem, Virginia.

2.3 QUALITY ASSURANCE/QUALITY CONTROL

2.3.1 FIELD PROCEDURES

The electrical conductivity meters and portable pH meters were calibrated every day prior to field measurements. The instruments were calibrated according to the manufacturer's instructions, which varied for each instrument. Commercially prepared conductivity solutions (1,000 umhos and 10,000 umhos) and pH buffer solutions (4 and 7) were used for calibration.

The accuracy of the information on the sample bottle labels was verified by the paperwork personnel in the trailer. Tag numbers attached to the sample bottles were cross-checked with tag numbers from the Chain of Custody Record prior to packaging. Sample handling and documentation were carried out in accordance with guidelines specified in the USEPA Region V Sample Handling Manual (March 1989), which is excerpted in Appendix C of the Sampling and Analysis Plan (SAP) of the Operable Unit Project Plans. All sample bottles were provided by the IEPA Sample Bottle Supply Program as discussed in Appendix D of the Quality Assurance Project Plan.

In addition to investigative samples, the following QA/QC samples were also collected as specified in the Operable Unit Project Plans: 10 field duplicates, 10 field blanks, and 8 Matrix Spike/Matrix Spike Duplicates

(MS/MSDs). In addition, a trip blank consisting of four 40-ml vials was included in each cooler containing samples for organic analysis; a total of 10 trip blanks were shipped. The trip blanks, which contained reagent-grade distilled water, were provided by IEPA. Pertinent information regarding QA/QC samples is listed in Table 2-4. Field duplicates (i.e., replicates of the investigative samples) were collected at the same time, following the same procedures as those for investigative samples. Field blanks containing reagent-grade distilled water were collected at the same time and location and in the same manner as the investigative samples. The MS/MSD sample for organic analysis consisted of four 40 ml vials, whereas the 1-liter inorganic sample was sufficient for both the investigative and MS/MSD analyses.

Samples were packaged and shipped as specified in Sections 3.4 and 3.5 of the Sampling and Analysis Plan (SAP). Samples that were collected late in the day or on Sunday were shipped by overnight carrier (Federal Express) the following day. Samples held overnight were kept on ice in coolers that were secured with custody seals. The trailer was locked at all times when unoccupied.

2.3.2 ANALYTICAL PROCEDURES

Organic samples were analyzed by S-Cubed in San Diego, California using Gas Chromatography/Mass Spectrometry. The organic samples were analyzed for the 9 VOCs listed in Table 3-9. Inorganic samples were analyzed by Centec Analytical Services of Salem, Virginia using Graphite Furnace Atomic Absorption (GFAA) for arsenic, cadmium, and lead, and Inductively Coupled Plasma (ICP) Emission for chromium. Both laboratories are part of the Contract Laboratory Program (CLP). Specific data requirements and QC procedures required of the analytical laboratories are detailed in the Special Analytical Services (SAS) requests, which can be found in Appendix B of the QAPP. The SAS request for organic analysis was based on the Safe Drinking Water Act (SDWA) analytical method 524.2 for low detection limits. The inorganic SAS was derived from the CLP Region V standardized SAS for

Table 2-4
Summary of QA/QC Sample Locations *

<i>Field Duplicate</i>		
<i>Street Address</i>		<i>Date</i>
4th	3045	14-Jun
10th	3110	14-Jun
Bildahl	3122	16-Jun
Brooke	823	12-Jun
Harrison	707	19-Jun
Harrison	2315	13-Jun
Horton	3129	15-Jun
Johnson	1737	11-Jun
Lapey	3013	19-Jun
River	3117	18-Jun

<i>Field Blank</i>		
<i>Street Address</i>		<i>Date</i>
8th	3138	18-Jun
11th	3015	12-Jun
17th	2602	13-Jun
18th	3110	14-Jun
Grant	3045	16-Jun
Harrison	707	19-Jun
Lapey	3213	15-Jun
Lapey	3230	14-Jun
Lyran	1617	11-Jun
Saner	3014	19-Jun

<i>Matrix Spike Duplicate</i>		
<i>Street Address</i>		<i>Date</i>
9th	2910	14-Jun
11th	2955	11-Jun
Bildahl	3206	16-Jun
Brooke	326	12-Jun
Collins	2801	13-Jun
Collins	3029	14-Jun
Harrison	1817	18-Jun
Kenyon	410	19-Jun

* 10 trip blanks were analyzed in addition to the samples listed.

inorganic drinking water analysis. Upon receipt of the analytical results, data validation was performed by CDM in accordance with the general procedures for data assessment outlined in Laboratory Data Validation Functional Guidelines for Evaluating Organic Analyses (February 1, 1988), and in Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses (July 1, 1988). Both documents were prepared by USEPA Data Review Work Group. Factors scrutinized during data validation included sample holding times, instrument tuning and performance, instrument calibration, analyte concentrations in blanks, surrogate recoveries, matrix spike/matrix spike duplicate analysis, and other quality control parameters outlined in the respective SAS requests.

2.4 FIELD MAPPING OF ADDRESSES

Street addresses within the study area were mapped in the field to develop an accurate address database. This task was accomplished by noting street numbers from houses or mailboxes and marking this information on digitized plat maps. The resulting address map is included as Figure 3-1, in the map packet accompanying this report.

2.5 DEVIATIONS FROM WORK PLAN

During the course of field work in the Southeast Rockford Study Area, several deviations from the Operable Unit Work Plan were made in order to expedite field activities and accommodate unforeseen circumstances. In this section, these deviations are discussed and documented.

The major deviation from the Operable Unit Work Plan was the number of samples collected in the field. The Work Plan called for 155 investigative samples, consisting of 144 residential samples, 10 industrial samples and 1 municipal well sample. As field work progressed, it became clear that many of the locations originally targeted for sampling, as well as the nearby alternate sample locations, could not be sampled for a variety of reasons. The bulk of these locations are in the southwestern portion of the study

area, west of Kishwaukee Street and south of Brooke Road, where many of the possible sample locations are serviced with municipal water. Other factors that prevented sample collection are listed in Table 2-3. After conferring with David Dollins, IEPA Project Manager, on June 19, 1990, it was decided that adequate attempts had been made to locate alternates for the sample points originally targeted in the Work Plan, and that the sample coverage from available sample points was sufficient to justify termination of sampling activities. As a result, a total of 117 investigative samples was collected.

Two residential samples not included in the Work Plan were added in order to improve sample density in areas where sample points were available. These samples included 3129 Horton Street and 3239 Kishwaukee Street.

Other deviations from the Work Plan involved industrial well samples. The Work Plan originally called for sampling ten industries that use private wells for potable water. Based on a survey performed by Virginia Wood of IEPA, of the industries in the study area, it was determined that the majority of businesses in the area use municipal water for their potable water supply. Consequently, the industrial wells at Commonwealth Edison, Estwing Manufacturing, and Rockford Products were sampled despite the fact that the wells were not used for potable water supply. This modification was made in order to provide sample coverage in the large industrial areas in the northwest and west-central portions of the study area.

Other samples that were originally classified as residential in the Work Plan were reclassified in order to more accurately reflect the primary use of the establishment owning the well. These wells include the wells at 2613 11th Street (Rockford Cylinder Gas), 2955 11th Street (Tussing Tile and Flooring), 3015 11th Street (Smith Auto Repair), 3119 11th Street (Goodyear Tire Company), 3237 11th Street (McDonald's), 3329 11th Street (Pizza Hut), 2602 17th Street (East Rockford Collision Center), 1101 Brooke Road (Kincades Service), 3109 Collins (Corcoran's Body Shop), and 3333 Kishwaukee (Rock River Reclamation District). Given the variety of

commercial and industrial uses of these establishments, the wells have been reclassified as 'nonresidential.'

The ratio of QA/QC samples to investigative samples was slightly different than originally planned in the Work Plan. The ratios of field blanks, field duplicates, and matrix spike/matrix spike duplicates to investigative samples were approximately 1:12, 1:12, and 1:15, respectively, rather than 1:10, 1:10, and 1:20, as specified in the Work Plan.

3.0 NATURE AND EXTENT OF GROUNDWATER CONTAMINATION

As a result of the IEPA, USEPA and IDPH studies, a great deal of information regarding contamination levels in residential wells in the study area has been collected. In this section of the Technical Memorandum, analytical results from these studies are presented in both map and tabular format. Due to the large study area, graphically presentable information is necessarily shown on maps measuring approximately 18 inches by 36 inches. The maps appear in the map packet which accompanies this report, and the tables appear in the text.

As stated in the introduction to this report, the intention of the Technical Memorandum is to present the data gathered in this and other studies in order to summarize the current status of contamination of residential wells and to provide a site characterization background for the feasibility study and the Record of Decision. In this section of the report, the quality and compatibility of the analytical data generated during this and other studies are discussed, and the current status of groundwater contamination is presented.

3.1 DATA ASSESSMENT

Field QC samples were collected to determine the accuracy and precision of field sampling procedures and to aid in assessing the overall quality of the data. This subsection presents and discusses the analytical results for the QC samples and compares the data generated from the Operable Unit sampling event with the results of prior sampling events.

As discussed in Subsection 2.3.2, data validation was performed in accordance with the Laboratory Data Validation Functional Guidelines for Evaluating Organics (February 1, 1988) and Inorganics (July 1, 1988) Analyses, prepared by the USEPA Data Review Work Group. Qualifiers were applied to the data based on the results of analytical QC performed by the

laboratories. Data qualifiers follow standard usage as given in USEPA's Statement of Work for Organics Analysis (SOW No. 288) and Statement of Work for Inorganics Analysis (SOW No. 788), hence only a brief explanation of the data flags is given here. Table 3-1 provides an explanation of the data qualifiers used in this report. Overall, there were no significant problems or shortcomings in the data, and all of the data were found to be useable as flagged.

For inorganic analytes, data flagged with "ND" indicate that the analyte was detected at or below the instrument detection limit (IDL) without further qualification. Data flagged with a "B" indicates blank contamination. Blank contamination was ubiquitous but mostly present at low levels that required no further action on the part of the laboratories or by the data validators. A "J" flag signifies that the reported concentration is an estimated value. The value is estimated because one of several possible analytical QC parameters exceeded control limits that were specified in either the SAS request or the Functional Guidelines (July 1, 1988). A "UJ" qualifier means that an analyte is not detected but is still an estimated value because control limits for analytical QC were exceeded. An "R" flag represents data that were rejected on the basis of analytical QC results; only two metal values from the Operable Unit data were rejected.

The data qualifiers used in VOC data assessment are similar to those used in assessment of the metals data (Table 3-1). A "B" is used to indicate contamination in the method (laboratory) blank. A sample is flagged with "B" whenever an analyte is found in the associated method blank, regardless of the level of blank contamination. However, if the concentration of the sample is less than 5 times the concentration in the method blank for a particular compound, the "B" would be dropped and the sample would be flagged with "U". A "U" qualifier also means that the analyte was analyzed for but was not detected. Anytime the concentration of a compound found in the sample is less than 5 times the concentration of the same compound found in the corresponding trip blank, field blank, or method blank, the

Table 3-1
Explanation of Data Qualifiers

Metals

Qualifier	Definition
ND	Analyzed for but not detected
B	The analyte was found in the lab blank at below the CRDL *
J	The associated value is estimated because quality control criteria were not met
R	Data are not useable
UJ	Analyzed for but not detected. The associated value is an estimate and may be inaccurate or imprecise

VOCs

Qualifier	Definition
ND	Analyzed for but not detected
B	Sample concentration is greater than or equal to 5 times the method blank contamination
J	The associated value is estimated because quality control criteria were not met
U	Analyzed for but not detected
UJ	Analyzed for but not detected. The sample quantitation limit is an estimated quantity

* CRDL = Contract Required Detection Limit

sample is flagged with "U." A sample can also be flagged with "U" anytime a quality control specification is grossly exceeded, as specified in the validation guidelines. A sample that is flagged with "J" signifies that the associated numerical value is an estimated quantity. A sample is flagged with "J" because control limits for analytical quality control specifications were exceeded or the detected concentration was between the contract required detection limit (CRDL) and the instrument detection limit (IDL). In some cases, flags are combined, with "UJ" being the most common combination. A "UJ" indicates that a compound is not detected but is estimated because control limits for analytical QC were exceeded. No VOC data were rejected.

3.1.1 DISCUSSION OF QC SAMPLE RESULTS

Field blank data for metals and VOCs are presented in Tables 3-2 and 3-3, respectively. None of the metal analytes were detected above their respective IDLs (as listed at the bottom of Table 3-2), indicating that the field sampling and laboratory procedures did not introduce significant levels of metal contaminants.

The VOC field blanks invariably contained low levels of contamination for certain analytes (Table 3-3). Most of the contamination found in the field blanks was qualified as a result of either minor contamination in the method blank (flagged with "B") or due to very low analyte concentrations in the blanks falling between the IDL and CRDL (flagged with "J"). Field blanks represent worst-case situations because some of them were collected at industrial locations such as automobile repair shops, which can contain significant levels of air-borne VOCs that can become incorporated into the blanks. In general, however, the field blanks did not show significant levels of contamination. The trip blank data (Table 3-4) attests to the pervasiveness of low-level VOC contamination. Trip blanks consisting of reagent-grade distilled water were prepared in "VOC-free" environments and were never directly exposed to the atmosphere during any part of the sampling event or sample shipment. Hence they represent a best-case

Table 3-2
IEPA Field Blank Data, Metals

1617 Lyran	
Residence	
Sample Number	508
Sample Date	6/11/90
Arsenic	ND
Cadmium	ND
Chromium	ND
Lead	ND

3015 11th	
Smith Auto Repair	
Sample Number	513
Sample Date	6/12/90
Arsenic	ND
Cadmium	ND
Chromium	ND
Lead	ND

2602 17th	
East Rockford Collision	
Sample Number	545
Sample Date	6/13/90
Arsenic	ND
Cadmium	ND
Chromium	ND
Lead	ND

3045 Grant Park	
Residence	
Sample Number	607
Sample Date	6/16/90
Arsenic	ND
Cadmium	ND
Chromium	ND
Lead	ND

3138 8th	
Residence	
Sample Number	619
Sample Date	6/17/90
Arsenic	ND
Cadmium	ND
Chromium	ND
Lead	ND

707 Harrison	
Rockford Products	
Sample Number	645
Sample Date	6/19/90
Arsenic	ND
Cadmium	ND
Chromium	ND
Lead	ND

3110 18th	
Residence	
Sample Number	562
Sample Date	6/13/90
Arsenic	ND
Cadmium	ND
Chromium	ND
Lead	ND

3230 Lapey	
Residence	
Sample Number	568
Sample Date	6/14/90
Arsenic	ND
Cadmium	ND
Chromium	ND
Lead	ND

3213 Lapey	
Residence	
Sample Number	595
Sample Date	6/15/90
Arsenic	ND
Cadmium	ND
Chromium	ND
Lead	ND

3014 Saner	
Residence	
Sample Number	633
Sample Date	6/18/90
Arsenic	ND
Cadmium	ND
Chromium	ND
Lead	ND

• Instrument Detection Limits (µg/l)

As 2.0
Cd 0.1
Cr 10.0
Pb 1.0

• ND = Not Detected

Table 3-3
IEPA Field Blank Data, VOCs

1617 Lyan	
Residence	
Sample Number	08
Sample Date	6/11/90
TCE	0.1J
1,1,1-TCA	0.4J
cis-1,2-DCE	0.0J
trans-1,2-DCE	0.0J
1,2-DCA	ND
1,1-DCA	ND
1,1-DCE	0.0J
PCE	0.0J
Vinyl Chloride	ND

3015 11th	
Smith Auto Repair	
Sample Number	13
Sample Date	6/12/90
TCE	0.1JB
1,1,1-TCA	0.3JB
cis-1,2-DCE	ND
trans-1,2-DCE	ND
1,2-DCA	ND
1,1-DCA	ND
1,1-DCE	ND
PCE	0.0JB
Vinyl Chloride	ND

2602 17th	
East Rockford Collision	
Sample Number	45
Sample Date	6/13/90
TCE	0.1JB
1,1,1-TCA	0.4J
cis-1,2-DCE	0.0JB
trans-1,2-DCE	ND
1,2-DCA	ND
1,1-DCA	ND
1,1-DCE	ND
PCE	0.0JB
Vinyl Chloride	ND

3045 Grant Park	
Residence	
Sample Number	107
Sample Date	6/16/90
TCE	0.1JB
1,1,1-TCA	0.5B
cis-1,2-DCE	ND
trans-1,2-DCE	ND
1,2-DCA	ND
1,1-DCA	ND
1,1-DCE	ND
PCE	0.1JB
Vinyl Chloride	ND

3138 8th	
Residence	
Sample Number	119
Sample Date	6/17/90
TCE	0.1JB
1,1,1-TCA	0.3J
cis-1,2-DCE	ND
trans-1,2-DCE	ND
1,2-DCA	ND
1,1-DCA	ND
1,1-DCE	ND
PCE	0.0JB
Vinyl Chloride	ND

707 Harrison	
Rockford Products	
Sample Number	145
Sample Date	6/19/90
TCE	0.1JB
1,1,1-TCA	0.3JB
cis-1,2-DCE	ND
trans-1,2-DCE	ND
1,2-DCA	ND
1,1-DCA	ND
1,1-DCE	ND
PCE	0.1JB
Vinyl Chloride	ND

3110 18th	
Residence	
Sample Number	62
Sample Date	6/13/90
TCE	0.1JB
1,1,1-TCA	1.7
cis-1,2-DCE	ND
trans-1,2-DCE	ND
1,2-DCA	ND
1,1-DCA	ND
1,1-DCE	ND
PCE	0.1JB
Vinyl Chloride	ND

3230 Lapey	
Residence	
Sample Number	68
Sample Date	6/14/90
TCE	0.1J
1,1,1-TCA	0.4J
cis-1,2-DCE	ND
trans-1,2-DCE	ND
1,2-DCA	ND
1,1-DCA	ND
1,1-DCE	ND
PCE	0.1J
Vinyl Chloride	ND

3213 Lapey	
Residence	
Sample Number	95
Sample Date	6/15/90
TCE	0.1J
1,1,1-TCA	0.5
cis-1,2-DCE	ND
trans-1,2-DCE	ND
1,2-DCA	ND
1,1-DCA	ND
1,1-DCE	ND
PCE	0.1JB
Vinyl Chloride	ND

3014 Saner	
Residence	
Sample Number	133
Sample Date	6/18/90
TCE	0.5JB
1,1,1-TCA	1.0J
cis-1,2-DCE	ND
trans-1,2-DCE	ND
1,2-DCA	ND
1,1-DCA	ND
1,1-DCE	ND
PCE	0.3JB
Vinyl Chloride	ND

• All concentrations in µg/l

• ND = Not Detected, J = Estimated Value, B = Blank Contamination

Table 3-4
IEPA Trip Blank Data

Sample Number 01	
Sample Date	6/11/90
TCE	0.0J
1,1,1-TCA	0.0J
cis-1,2-DCE	ND
trans-1,2-DCE	ND
1,2-DCA	ND
1,1-DCA	ND
1,1-DCE	ND
PCE	0.0J
Vinyl Chloride	ND

Sample Number 11	
Sample Date	6/12/90
TCE	0.1JB
1,1,1-TCA	0.1JB
cis-1,2-DCE	0.2JB
trans-1,2-DCE	ND
1,2-DCA	0.1JB
1,1-DCA	0.2JB
1,1-DCE	0.1JB
PCE	0.0JB
Vinyl Chloride	0.0J

Sample Number 23	
Sample Date	6/12/90
TCE	0.0JB
1,1,1-TCA	0.1J
cis-1,2-DCE	ND
trans-1,2-DCE	ND
1,2-DCA	ND
1,1-DCA	ND
1,1-DCE	ND
PCE	0.1JB
Vinyl Chloride	ND

Sample Number 35	
Sample Date	6/13/90
TCE	0.0JB
1,1,1-TCA	0.0J
cis-1,2-DCE	0.1JB
trans-1,2-DCE	ND
1,2-DCA	ND
1,1-DCA	ND
1,1-DCE	ND
PCE	0.0JB
Vinyl Chloride	ND

Sample Number 74	
Sample Date	6/14/90
TCE	0.0JB
1,1,1-TCA	ND
cis-1,2-DCE	ND
trans-1,2-DCE	ND
1,2-DCA	ND
1,1-DCA	ND
1,1-DCE	ND
PCE	0.1JB
Vinyl Chloride	ND

Sample Number 91	
Sample Date	6/15/90
TCE	ND
1,1,1-TCA	ND
cis-1,2-DCE	ND
trans-1,2-DCE	ND
1,2-DCA	ND
1,1-DCA	ND
1,1-DCE	ND
PCE	0.0JB
Vinyl Chloride	ND

Sample Number 101	
Sample Date	6/16/90
TCE	0.1JB
1,1,1-TCA	0.0JB
cis-1,2-DCE	ND
trans-1,2-DCE	ND
1,2-DCA	ND
1,1-DCA	ND
1,1-DCE	ND
PCE	0.1JB
Vinyl Chloride	ND

Sample Number 123	
Sample Date	6/18/90
TCE	0.0JB
1,1,1-TCA	0.0J
cis-1,2-DCE	ND
trans-1,2-DCE	ND
1,2-DCA	ND
1,1-DCA	ND
1,1-DCE	ND
PCE	0.0JB
Vinyl Chloride	ND

Sample Number 137	
Sample Date	6/19/90
TCE	0.1JB
1,1,1-TCA	0.1JB
cis-1,2-DCE	ND
trans-1,2-DCE	ND
1,2-DCA	ND
1,1-DCA	ND
1,1-DCE	ND
PCE	0.0JB
Vinyl Chloride	ND

Sample Number 151	
Sample Date	6/20/90
TCE	0.0JB
1,1,1-TCA	ND
cis-1,2-DCE	ND
trans-1,2-DCE	ND
1,2-DCA	ND
1,1-DCA	ND
1,1-DCE	ND
PCE	0.0JB
Vinyl Chloride	ND

• All concentrations in µg/l

• ND = Not Detected, J = Estimated Value, B = Blank Contamination

situation with respect to VOC contamination, making the trip blanks a useful reference against which field blank contamination can be judged. Comparison of Tables 3-3 and 3-4 shows that VOC levels are similar for trip blanks and field blanks, suggesting that contamination during field sampling was not significant compared with trip blank contamination. Furthermore, the low levels of VOCs in the trip blanks indicate that contamination from shipping was negligible. Overall, VOC levels in field blanks were somewhat greater than trip blank VOC levels, which is not surprising given the possibility for air-borne contamination accompanying field sampling conditions.

Field duplicates were collected in order to assess the overall precision of field sampling and laboratory procedures. The Relative Percent Difference (RPD) was calculated for each duplicate pair except in cases where one or both of the concentration values fell at or below the detection limit, or where values were reported as not detected. Overall, the correlation among duplicates was good. Results for sample/field duplicate pairs and the RPDs are listed for metals and for VOCs in Tables 3-5 and 3-6, respectively.

For the metals, one or both concentrations for the sample/field duplicate pairs were frequently found to be at or below the IDL. This makes it difficult to judge the reproducibility of the metals data because the absolute concentration values can not be determined. However it should be noted that most of the duplicate pairs had both results reported as not detected, which indicates good reproducibility even though an RPD could not be calculated. Review of the analytical results listed in Table 3-5 indicates that the reported concentrations for samples and duplicates are closely matched. The RPDs for the metals duplicates were less than 30% RPD for all samples except lead at 2315 Harrison, which had a 84% RPD (Table 3-5). Such a large RPD is misleading when it occurs for a sample with low concentration because a small difference in reported values can produce large RPDs. In general, the metals duplicates indicate good reproducibility.

Table 3-7
Analytical Results for Multiple Samples
(USEPA vs IDPH Data)

(All concentrations in µg/l)

2826 11th		
Sampling Agency	USEPA	IDPH
Sample Date	10/5/89	8/9/88
TCE	27.2	ND
1,1,1-TCA	68.4	ND
cis-1,2-DCE	21.3	ND
trans-1,2-DCE	ND	ND
1,2-DCA	ND	ND
1,1-DCA	22.0	ND
1,1-DCE	*	ND
PCE	*	ND
Vinyl Chloride	*	ND

2722 Sewell		
Sampling Agency	USEPA	IDPH
Sample Date	10/4/89	8/9/88
TCE	2.9	0.5
1,1,1-TCA	27.5	3.2
cis-1,2-DCE	11.5	ND
trans-1,2-DCE	ND	ND
1,2-DCA	ND	ND
1,1-DCA	29.9	0.2
1,1-DCE	*	ND
PCE	*	ND
Vinyl Chloride	*	ND

3141 20th		
Sampling Agency	USEPA	IDPH
Sample Date	10/3/89	8/21/89
TCE	ND	ND
1,1,1-TCA	ND	ND
cis-1,2-DCE	ND	ND
trans-1,2-DCE	ND	ND
1,2-DCA	ND	ND
1,1-DCA	ND	ND
1,1-DCE	*	ND
PCE	*	ND
Vinyl Chloride	*	ND

2518 Lindberg		
Sampling Agency	USEPA	IDPH
Sample Date	10/3/89	11/6/89
TCE	3.1	4.2
1,1,1-TCA	7.7	11.2
cis-1,2-DCE	1.9	ND
trans-1,2-DCE	ND	ND
1,2-DCA	ND	ND
1,1-DCA	1.2	ND
1,1-DCE	*	1.2
PCE	*	Trace
Vinyl Chloride	*	ND

2837 Cannon		
Sampling Agency	USEPA	IDPH
Sample Date	10/4/89	10/17/89
TCE	37.0	47.1
1,1,1-TCA	88.3	89.1
cis-1,2-DCE	24.1	ND
trans-1,2-DCE	ND	ND
1,2-DCA	0.5	ND
1,1-DCA	23.8	16.3
1,1-DCE	*	9.4
PCE	*	0.7
Vinyl Chloride	*	ND

2904 Cannon		
Sampling Agency	USEPA	IDPH
Sample Date	10/4/89	9/8/88
TCE	15.5	6.4
1,1,1-TCA	35.6	56.0
cis-1,2-DCE	*	ND
trans-1,2-DCE	*	ND
1,2-DCA	ND	ND
1,1-DCA	12.4	2.0
1,1-DCE	7.7	1.4
PCE	ND	0.2
Vinyl Chloride	ND	ND

2833 Kinsey		
Sampling Agency	USEPA	IDPH
Sample Date	10/5/89	9/19/89
TCE	17.8	20.9
1,1,1-TCA	62.9	81.0
cis-1,2-DCE	11.9	ND
trans-1,2-DCE	ND	ND
1,2-DCA	ND	ND
1,1-DCA	10.9	12.6
1,1-DCE	*	0.8
PCE	*	ND
Vinyl Chloride	*	ND

2814 20th		
Sampling Agency	USEPA	IDPH
Sample Date	10/3/89	9/26/89
TCE	120.0	121.7
1,1,1-TCA	283.0	57.5
cis-1,2-DCE	138.0	ND
trans-1,2-DCE	2.5	ND
1,2-DCA	4.0	ND
1,1-DCA	133.0	46.8
1,1-DCE	*	<1
PCE	*	15.1
Vinyl Chloride	*	ND

ND = Not Detected

* = Not Analyzed for

Table 3-7 cont.
Analytical Results for Multiple Samples
(USEPA vs IDPH Data)

(All concentrations in µg/l)

2804 Hanson			
Sampling Agency	USEPA	IDPH	IDPH
Sample Date	10/5/89	9/13/88	6/20/89
TCE	19.1	68.0	73.4
1,1,1-TCA	201.0	98.0	204.0
cis-1,2-DCE	47.5	ND	ND
trans-1,2-DCE	0.6	ND	ND
1,2-DCA	1.0	ND	0.9
1,1-DCA	43.8	25.0	ND
1,1-DCE	*	3.8	52.2
PCE	*	3.2	3.3
Vinyl Chloride	*	ND	ND

2746 Lapey			
Sampling Agency	USEPA	USEPA	IDPH
Sample Date	10/5/89	10/5/89	9/26/89
TCE	29.9	30.0	50.0
1,1,1-TCA	158.0	160.0	224.2
cis-1,2-DCE	29.2	28.4	ND
trans-1,2-DCE	ND	ND	ND
1,2-DCA	0.8	0.8	ND
1,1-DCA	32.2	32.6	25.2
1,1-DCE	*	*	2.7
PCE	*	*	4.1
Vinyl Chloride	*	*	ND

2741 Cannon			
Sampling Agency	USEPA	USEPA	IDPH
Sample Date	8/9/89	10/24/89	8/9/88
TCE	35.4	36.8	140.0
1,1,1-TCA	*	158.0	140.0
cis-1,2-DCE	*	40.4	ND
trans-1,2-DCE	*	ND	ND
1,2-DCA	*	1.1	ND
1,1-DCA	320.0	38.2	13.0
1,1-DCE	47.8	*	2.0
PCE	1.32J	*	4.8
Vinyl Chloride	ND	*	ND

ND = Not Detected

* = Not Analyzed for

Table 3-8
Analytical Results for Multiple Samples
(IEPA vs IDPH Data)

(All concentrations in µg/l)

2810 8th		
Sampling Agency	IEPA	IDPH
Sample Date	6/14/90	12/8/89
TCE	8.3	5.6
1,1,1-TCA	27.9	ND
cis-1,2-DCE	4.7	ND
trans-1,2-DCE	0.1J	Trace
1,2-DCA	0.3J	22.5
1,1-DCA	4.3	Trace
1,1-DCE	4.3	2.8
PCE	ND	Trace
Vinyl Chloride	ND	ND

3110 18th		
Sampling Agency	IEPA	IDPH
Sample Date	6/14/90	12/11/89
TCE	ND	ND
1,1,1-TCA	3.2U	ND
cis-1,2-DCE	ND	ND
trans-1,2-DCE	ND	2.2
1,2-DCA	ND	ND
1,1-DCA	0.1J	ND
1,1-DCE	0.2J	ND
PCE	ND	ND
Vinyl Chloride	ND	ND

1317 Brooke		
Sampling Agency	IEPA	IDPH
Sample Date	6/15/90	12/4/89
TCE	2.3B	1.0
1,1,1-TCA	4.7	3.2
cis-1,2-DCE	0.5	ND
trans-1,2-DCE	ND	ND
1,2-DCA	ND	ND
1,1-DCA	0.7	ND
1,1-DCE	0.5J	ND
PCE	ND	ND
Vinyl Chloride	ND	ND

3310 Collins		
Sampling Agency	IEPA	IDPH
Sample Date	6/13/90	12/5/89
TCE	0.9B	0.9
1,1,1-TCA	2.5	2.2
cis-1,2-DCE	ND	ND
trans-1,2-DCE	ND	ND
1,2-DCA	ND	ND
1,1-DCA	0.1J	Trace
1,1-DCE	0.1J	ND
PCE	ND	Trace
Vinyl Chloride	ND	ND

3230 Lapey		
Sampling Agency	IEPA	IDPH
Sample Date	6/14/90	12/12/89
TCE	ND	ND
1,1,1-TCA	ND	ND
cis-1,2-DCE	ND	ND
trans-1,2-DCE	ND	ND
1,2-DCA	ND	ND
1,1-DCA	ND	ND
1,1-DCE	ND	ND
PCE	ND	ND
Vinyl Chloride	ND	ND

1637 Pershing		
Sampling Agency	IEPA	IDPH
Sample Date	6/15/90	11/6/89
TCE	1.7B	2.1
1,1,1-TCA	3.1	4.1
cis-1,2-DCE	0.1J	ND
trans-1,2-DCE	ND	ND
1,2-DCA	ND	ND
1,1-DCA	0.2J	ND
1,1-DCE	0.2J	ND
PCE	ND	ND
Vinyl Chloride	ND	ND

1812 Sandy Hollow		
Sampling Agency	IEPA	IDPH
Sample Date	6/13/90	12/5/89
TCE	ND	ND
1,1,1-TCA	ND	ND
cis-1,2-DCE	ND	ND
trans-1,2-DCE	ND	ND
1,2-DCA	ND	ND
1,1-DCA	ND	ND
1,1-DCE	ND	ND
PCE	ND	Trace
Vinyl Chloride	ND	ND

3120 17th		
Sampling Agency	IEPA	IDPH
Sample Date	6/13/90	8/21/89
TCE	2.0B	1.5
1,1,1-TCA	2.8	2.7
cis-1,2-DCE	ND	ND
trans-1,2-DCE	ND	ND
1,2-DCA	0.1J	ND
1,1-DCA	0.3J	ND
1,1-DCE	0.4J	0.3
PCE	0.3J	ND
Vinyl Chloride	ND	ND

• ND= Not Detected, U = Not Detected in Dilution, J = Estimated Value, B = Blank Contamination

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IDPH and USEPA samples, but the reported values for 1,1,1-TCA, cis-1,2-DCE, and 1,1-DCA differ by factors ranging from 3 to 276. The match between IEPA and IDPH sample analyses is somewhat better, but there are significant differences among reported concentrations for these multiple samples as well (Table 3-8). For example, at 2810 8th Street, IEPA reports a TCE concentration of 27.9 ppb, whereas IDPH reports a non-detect. At the same location, IEPA reports an estimated 1,2-DCA concentration of 0.3 ppb, whereas IDPH reports 22.5 ppb.

Given these differences in contaminant concentrations reported by different agencies for the same locations, it is clear that the three data sets considered in this investigation are not consistent, and could not be presented together. Because the QA/QC procedures, detection limits, and sample collection techniques are known to be comparable for both the IEPA and USEPA samples, the IEPA and USEPA analytical results were used together to form the primary data set for this investigation. The IDPH sample results are presented separately, and are intended to be used as supplementary data, to complement the primary IEPA/USEPA data set.

As mentioned above, there are no locations that were sampled by both IEPA and USEPA, and therefore it is not possible to directly compare the two data sets. Review of sample results for sample locations geographically close to each other (such as the IEPA and USEPA samples on Lindberg Drive, near Sawyer Road and Marshall Street, and near Lapey Street and Brooke Road) show close agreement. Therefore, the 2 data sets appear to be compatible.

3.2 VOLATILE ORGANIC CONTAMINATION

Groundwater contamination by VOCs at levels ranging from non-detect to hundreds of parts per billion has been established by analytical results from IDPH, USEPA, and IEPA samples. Contaminants of concern in the study area were identified based on previous sampling by IDPH and USEPA, as discussed in Section 2.4 of the Operable Unit Work Plan. The contaminants

of concern and detection limits associated with the analytical procedures used for the IEPA Operable Unit are listed in Table 3-9. Detection limits for analytical procedures used in this investigation are discussed in Section 5.3 of the Quality Assurance Project Plan (QAPP). Analytical results for VOCs from each of the three studies are presented in both tables and maps. VOC data generated from the IEPA Operable Unit study are presented in Table 3-10. Data from the USEPA and IDPH investigations are presented in Tables 3-11 and 3-12, respectively. To assist in locating addresses within the study area that correspond to the analytical results listed in the tables, a comprehensive address map of all addresses in the study area is included as Figure 3-1 in the map packet. Maps of IEPA/USEPA and IDPH sample locations are also included with the map packet as Figures 3-2 and 3-3, respectively.

3.2.1 DATA DISPLAY AND CONTOURING

Based on the analytical data presented in Tables 3-10 through 3-12, plume contour maps depicting the distribution and levels of groundwater contamination across the study area were prepared for each of the nine VOC contaminants of concern. The plume of VOC-contaminated groundwater is shown in the maps as a base map of the study area on which numerical values for contaminant concentrations, laboratory flags, and concentration contours are overlain. The numerical concentration values depicted on the maps are expressed in parts per billion (ppb), which have been rounded to one decimal place to facilitate display and contouring of the data. Laboratory flags displayed on the figures are discussed in the text in Subsection 3.1 and given in Table 3-1. Because of the data incompatibilities discussed in Subsection 3.1.2, the IDPH data has been presented separately from the IEPA and USEPA data.

The contouring process is interpretational, and involves extrapolating contour lines through areas that may have little or no data. As a consequence, the drawings presented with this report represent one of many possible interpretations of the actual configuration of the plume. A

Table 3-9
Contaminants Analyzed and Detection
Limits for Operable Unit Samples

Contaminant	Abbreviation	Operable Unit Detection Limit (ppb)
Trichloroethene	TCE	0.5
1,1,1-Trichloroethane	1,1,1-TCA	0.5
cis-1,2-Dichloroethene	cis-1,2-DCE	0.5
trans-1,2-Dichloroethene	trans-1,2-DCE	0.5
1,2-Dichloroethane	1,2-DCA	0.5
1,1-Dichloroethane	1,1-DCA	0.5
1,1-Dichloroethene	1,1-DCE	0.5
Tetrachloroethene	PCE	0.5
Vinyl Chloride		0.25
Arsenic	As	2.0
Cadmium	Cd	0.1
Chromium	Cr	10.0
Lead	Pb	1.0

Table 3-10
IEPA VOC Data
(All concentrations in µg/l)

Address	Street No.	Sample No.	Sampling Agency	DATE	TCE	1,1,1-TCA	cis-1,2-DCE	trans-1,2-DCE	1,2-DCA	1,1-DCA	1,1-DCE	PCE	Vinyl Chloride
4th	2819	7	IEPA	6/11/90	17.0B	24.9B	13.6B	ND	2.6B	21.0B	7.5B	2.1B	ND
4th	2828	9	IEPA	6/11/90	18.4B	28.8B	13.1B	ND	2.2B	18.4B	8.7B	2.0B	ND
4th	2901	18	IEPA	6/12/90	29.2B	61.8	22.5	0.2J	3.2B	30.7	25.3	4.1B	ND
4th	3045	70/71	IEPA	6/14/90	36.0B	2.7	1.0	ND	ND	0.2J	0.1J	9.7B	ND
5th	2624	77	IEPA	6/15/90	2.8B	1.7U	14.1	0.2J	ND	0.3J	0.3J	2.1B	ND
7th	3115	82	IEPA	6/15/90	1.1B	3.0	0.1J	ND	ND	ND	ND	1.3B	ND
7th	3233	53	IEPA	6/13/90	1.5B	3.1	ND	ND	0.3J	0.4J	0.2J	6.8B	ND
7th	3309	64	IEPA	6/14/90	ND	0.9U	ND	ND	ND	0.0J	ND	ND	ND
8th	2647	130	IEPA	6/18/90	10.0U	528.10	24.7	0.9J	5.7J	533.2	109.7	10.0U	9.1
8th	2810	58	IEPA	6/14/90	8.3	27.9	4.7	0.1J	0.3J	4.3	4.3	ND	ND
8th	2914	73	IEPA	6/14/90	ND	1.8U	ND	ND	ND	0.2J	ND	15.1B	ND
8th	3022	116	IEPA	6/17/90	ND	2.1	ND	ND	ND	0.5	ND	ND	ND
8th	3109	120	IEPA	6/18/90	1.8B	3.3	0.1J	ND	ND	0.3J	0.1J	0.3J	ND
8th	3138	118	IEPA	6/17/90	2.5B	3.9	0.2J	ND	ND	0.3J	0.2J	1.0B	ND
8th	3201	46	IEPA	6/13/90	ND	0.6U	ND	ND	ND	ND	ND	ND	ND
8th	3237	40	IEPA	6/13/90	1.0	1.5U	ND	ND	ND	0.2J	0.1J	1.8	ND
8th	3301	39	IEPA	6/13/90	0.6	1.2U	ND	ND	ND	0.1J	0.0J	0.5	ND
8th	3337	41	IEPA	6/13/90	ND	ND	ND	ND	ND	ND	ND	0.2J	ND
9th	2910	96	IEPA	6/14/90	0.4J	1.0U	0.2J	ND	ND	0.1J	ND	ND	ND
9th	3101	112	IEPA	6/18/90	2.1B	3.8	0.2J	ND	ND	0.3J	0.2J	ND	ND
9th	3210	87	IEPA	6/15/90	2.0B	3.2	0.1J	ND	ND	0.4J	0.3J	2.4B	ND
9th	3245	65	IEPA	6/14/90	ND	1.9	ND	ND	ND	0.1J	ND	ND	ND
10th	3110	56/57	IEPA	6/13/90	2.9B	5.2U	ND	ND	ND	0.2J	0.2J	ND	ND
11th	2613	127	IEPA	6/18/90	14.3B	73.3	20.5	0.2J	0.4J	13.7	7.8	ND	ND
11th	2955	4	IEPA	6/11/90	1.0	1.3U	11.2	0.1J	0.1J	0.1J	0.1J	ND	ND
11th	3015	14	IEPA	6/12/90	3.3B	6.3B	0.5U	ND	ND	0.7U	0.5J	ND	ND
11th	3119	17	IEPA	6/12/90	ND	ND	ND	ND	ND	ND	ND	ND	ND
11th	3237	80	IEPA	6/15/90	0.9B	2.1	ND	ND	ND	ND	ND	0.7B	ND
11th	3329	79	IEPA	6/15/90	ND	ND	ND	ND	ND	ND	ND	ND	ND
16th	3102	52	IEPA	6/13/90	3.1B	7.0	1.5B	ND	ND	1.1	1.1	0.7B	ND
16th	3122	400	IEPA	6/13/90	1.3B	2.9	ND	ND	ND	0.1J	0.2J	0.4J	ND
17th	2602	44	IEPA	6/13/90	1.1B	29.1	2.5B	ND	0.2J	2.5	1.0	0.2J	ND
17th	3120	51	IEPA	6/13/90	2.0B	2.8	ND	ND	0.1J	0.3J	0.4J	0.3J	ND
18th	3110	61	IEPA	6/13/90	ND	3.2U	ND	ND	ND	0.1J	0.2J	ND	ND
20th	2703	121	IEPA	6/18/90	ND	0.2J	0.1J	ND	0.2J	0.8	0.1J	ND	ND
20th	3109	42	IEPA	6/18/90	1.2B	1.4U	ND	ND	ND	0.1J	0.1J	0.2J	ND
Barnum	505	150	IEPA	6/20/90	0.5B	0.3J	0.1J	ND	ND	ND	ND	ND	ND
Barry	426	132	IEPA	6/18/90	427.6B	6.5	99.4	0.6	ND	0.6	0.7	0.6B	ND
Bildahl	2944	141	IEPA	6/19/90	ND	ND	0.1J	ND	ND	0.3J	ND	ND	ND
Bildahl	3017	148	IEPA	6/19/90	ND	ND	0.1J	ND	1.6	0.9	ND	ND	ND
Bildahl	3038	92	IEPA	6/15/90	1.6	2.9	0.1J	ND	ND	0.2J	0.1J	ND	ND
Bildahl	3122	109/110	IEPA	6/16/90	2.7B	4.2B	ND	ND	ND	ND	ND	ND	ND
Bildahl	3141	94	IEPA	6/15/90	2.2	3.8	0.2J	ND	ND	0.4J	0.2J	2.3B	ND
Bildahl	3206	111	IEPA	6/16/90	1.9B	2.7B	ND	ND	ND	ND	ND	2.6B	ND
Bildahl	3302	98	IEPA	6/15/90	ND	1.0U	ND	ND	ND	ND	ND	ND	ND
Bildahl	3338	99	IEPA	6/15/90	ND	ND	ND	ND	ND	ND	ND	ND	ND
Brooke	110	117	IEPA	6/18/90	125.9B	1.2U	7.4	0.1J	0.1J	1.1	0.6	4.0B	ND
Brooke	202	29	IEPA	6/12/90	ND	0.7U	ND	ND	ND	0.7U	ND	ND	ND
Brooke	326	19	IEPA	6/12/90	ND	ND	13.6	ND	ND	ND	ND	ND	ND
Brooke	409	26	IEPA	6/12/90	2.4B	3.8B	1.0U	0.1J	ND	0.6U	0.6	2.0B	ND
Brooke	823	27/28	IEPA	6/12/90	19.7B	43.0B	8.0	0.1J	1.7	12.0	5.9	ND	ND
Brooke	1101	139	IEPA	6/19/90	0.7B	2.2B	0.1J	ND	0.3J	1.1	0.1J	ND	ND
Brooke	1202	81	IEPA	6/15/90	1.6B	4.5	0.4J	ND	ND	0.7	0.4J	ND	ND
Brooke	1317	84	IEPA	6/15/90	2.3B	4.7	0.5	ND	ND	0.7	0.5J	ND	ND
Collins	2801	43	IEPA	6/13/90	2.0B	8.6B	2.1	ND	ND	2.1	1.4	0.1J	ND
Collins	3029	75	IEPA	6/14/90	0.6B	1.9U	ND	ND	ND	0.4J	0.1J	ND	ND
Collins	3109	105	IEPA	6/16/90	ND	ND	ND	ND	0.1J	0.5B	ND	ND	ND
Collins	3126	108	IEPA	6/16/90	2.0B	2.9B	ND	ND	ND	ND	ND	ND	ND
Collins	3245	60	IEPA	6/14/90	ND	1.0U	ND	ND	ND	0.1J	ND	0.5J	ND
Collins	3310	50	IEPA	6/13/90	0.9B	2.5	ND	ND	ND	0.1J	0.1J	ND	ND
Energy	123	76	IEPA	6/14/90	101.6B	15.7	11.2	ND	0.5J	2.8	3.3	24.0B	ND
Grant	3045	106	IEPA	6/16/90	ND	ND	ND	ND	ND	ND	ND	ND	ND
Grant	3107	115	IEPA	6/18/90	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hamilton	1630	124	IEPA	6/18/90	1.9B	3.0	0.1J	ND	ND	0.2J	0.2J	ND	ND

• ND = Not Detected, U = Not Detected in Dilution, J = Estimated Value, B = Blank Contamination

Table 3-10 cont.
IEPA VOC Data
 (All concentrations in µg/l)

Address	Street No.	Sample No.	Sampling Agency	DATE	TCE	1,1,1-TCA	cis-1,2-DCE	trans-1,2-DCE	1,2-DCA	1,1-DCA	1,1-DCE	PCE	Vinyl Chloride
Hamilton	1735	2	IEPA	6/11/90	0.8	1.3U	ND	ND	ND	0.1J	0.1J	ND	ND
Harrison	707	146/147	IEPA	6/19/90	41.4B	93.5B	42.6	0.2J	4.5J	43.7	34.9	10.4B	0.7
Harrison	1713	100	IEPA	6/15/90	3.3	33.4	5.8	0.1J	ND	8.0	1.5	0.7B	ND
Harrison	1817	126	IEPA	6/18/90	62.8B	990.8	22.2	0.1J	ND	16.5	25.4	1.0B	ND
Harrison	2315	47/48	IEPA	6/13/90	0.4J	10.5	0.4J	ND	0.1J	1.8	0.9	ND	ND
Horton	3129	88/89	IEPA	6/15/90	0.8B	1.9U	ND	ND	ND	ND	0.1J	ND	ND
Johnson	1737	3&5	IEPA	6/11/90	ND	ND	0.2J	ND	0.2J	0.0J	ND	ND	ND
Kennon	410	149	IEPA	6/19/90	ND	ND	ND	ND	ND	ND	ND	ND	ND
Kennon	621	140	IEPA	6/19/90	6.8B	1.3B	2.4	ND	ND	0.1J	ND	545.0	ND
Kishwaukee	3037	135	IEPA	6/19/90	13.4B	5.4B	1.3	ND	0.4J	2.0	1.4	ND	ND
Kishwaukee	3202	90	IEPA	6/15/90	ND	3.4	ND	ND	ND	ND	ND	0.4J	ND
Kishwaukee	3239	66	IEPA	6/14/90	ND	1.8U	ND	ND	0.2J	0.2J	0.1J	1.8B	ND
Kishwaukee	3302	67	IEPA	6/14/90	ND	2.5	ND	ND	ND	ND	ND	1.2B	ND
Kishwaukee	3333	131	IEPA	6/18/90	1.3B	0.9U	0.2J	ND	0.0J	1.4	0.7	ND	ND
Lapey	3013	142/143	IEPA	6/19/90	2.2B	4.3B	0.3J	ND	ND	0.5J	0.3J	0.6B	ND
Lapey	3101	104	IEPA	6/16/90	1.8B	2.8B	ND	ND	ND	ND	ND	ND	ND
Lapey	3138	103	IEPA	6/16/90	2.7B	4.0B	ND	ND	ND	0.4J	ND	ND	ND
Lapey	3213	97	IEPA	6/15/90	1.4	2.6U	0.1J	ND	ND	0.2J	ND	ND	ND
Lapey	3230	69	IEPA	6/14/90	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lapey	3329	72	IEPA	6/14/90	ND	0.7U	ND	ND	ND	ND	ND	ND	ND
Lindale	2406	38	IEPA	6/13/90	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lindale	2620	21	IEPA	6/12/90	1.1B	1.7	ND	ND	ND	ND	ND	0.9B	ND
Lindberg	2412	22	IEPA	6/12/90	1.6B	ND	ND	ND	ND	1.3	0.3J	ND	ND
Lindberg	2619	59	IEPA	6/14/90	3.2B	5.8U	1.1B	ND	0.2J	0.9	0.8	0.6B	ND
Lyrar	1617	10	IEPA	6/11/90	ND	1.2U	ND	ND	ND	ND	ND	1.1B	ND
Lyrar	1701	12	IEPA	6/12/90	ND	ND	ND	ND	ND	ND	ND	ND	ND
Marshall	3106	63	IEPA	6/14/90	ND	ND	ND	ND	ND	0.2J	0.1J	ND	ND
Marshall	3137	83	IEPA	6/15/90	1.8B	3.4	0.1J	ND	ND	0.3J	0.3J	ND	ND
Martin	430	54	IEPA	6/13/90	4.8B	0.9U	2.0B	ND	0.3J	0.1J	0.3J	4.7B	ND
Mattis	827	24	IEPA	6/12/90	31.9B	59.5	17.0	0.1J	2.8B	26.9	20.1	3.2B	ND
New Milford	608	138	IEPA	6/18/90	13.8B	10.0B	0.5J	ND	ND	0.6	1.2	4.6B	ND
Olsen	2820	20	IEPA	6/12/90	10.2B	ND	2.0	ND	ND	ND	ND	127.3	ND
Pershing	1637	86	IEPA	6/15/90	1.7B	3.1	0.1J	ND	ND	0.2J	0.2J	ND	ND
Pershing	1726	85	IEPA	6/15/90	2.1B	4.1	0.5J	ND	ND	0.5J	0.4J	ND	ND
Ranger	801	6	IEPA	6/12/90	21.4B	31.6B	14.4B	ND	2.8B	21.6B	11.4B	2.1B	0.1J
River Blvd.	3007	16	IEPA	6/12/90	111.4B	1.2U	13.4B	ND	ND	1.0U	0.6B	1.4B	ND
River Blvd.	3110	136	IEPA	6/19/90	ND	ND	0.2J	ND	ND	0.2J	ND	ND	ND
River Blvd.	3117	113/114	IEPA	6/17/90	ND	ND	0.3J	ND	ND	0.2J	ND	ND	ND
Rock River	508	30	IEPA	6/12/90	170.8B	12.5U	1233.0B	12.5U	12.5U	12.5U	12.5U	12.5U	113.5
Roosevelt	841	128	IEPA	6/18/90	0.9B	2.4	0.1J	ND	ND	0.3J	0.2J	2.4B	ND
Sandy Hlw	728	102	IEPA	6/16/90	ND	0.7U	ND	ND	ND	ND	ND	ND	ND
Sandy Hlw	810	125	IEPA	6/18/90	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sandy Hlw	1202	122	IEPA	6/18/90	ND	ND	ND	ND	ND	ND	ND	0.3J	ND
Sandy Hlw	1306	49	IEPA	6/13/90	ND	ND	ND	ND	ND	ND	ND	0.2J	ND
Sandy Hlw	1812	37	IEPA	6/13/90	ND	ND	ND	ND	ND	ND	ND	ND	ND
Saner	2905	25	IEPA	6/12/90	1.7B	1.8B	0.7U	0.1J	ND	ND	0.4J	1.0B	ND
Saner	3014	134	IEPA	6/18/90	0.7B	2.0B	0.1J	ND	ND	0.4J	0.2J	2.8B	ND
Saner	3110	78	IEPA	6/15/90	ND	1.0U	ND	ND	ND	ND	ND	ND	ND
Sawyer	319	36	IEPA	6/13/90	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sewell	2646	144	IEPA	6/19/90	0.7	39.3	0.2J	ND	ND	1.5	1.2	ND	ND
Sewell	3135.5	93	IEPA	6/15/90	ND	0.5U	ND	ND	ND	ND	ND	ND	ND
South	619	15	IEPA	6/12/90	18.2B	71.1	2.1	0.0J	ND	ND	3.2	ND	ND
Taft	804	129	IEPA	6/18/90	ND	1.4	ND	ND	ND	0.1J	ND	1.1B	ND

• ND = Not Detected, U = Not Detected in Dilution, J = Estimated Value, B = Blank Contamination

Table 3-11
USEPA VOC Data
(All concentrations in µg/l)

Address	Street No.	Sampling Agency	Sample No.	DATE 1989	TCE	1,1,1-TCA	cis-1,2-DCE	trans-1,2-DCE	1,2-DCA	1,1-DCA	1,1-DCE	PCE	Vinyl Chloride
9th	3021	USEPA	S80	10/5/89	ND	3.0J	NA	NA	ND	ND	ND	ND	ND
9th	3226	USEPA	S81	10/5/89	0.6	2.0	ND	ND	ND	ND	NA	NA	NA
9th	3329	USEPA	S82	10/5/89	ND	0.6	ND	ND	ND	ND	NA	NA	NA
10th	2730	USEPA	S9	10/26/89	28.0	142.0	29.6	ND	ND	31.3	NA	NA	NA
10th	3141	USEPA	S69	10/5/89	2.0	4.3	ND	ND	ND	ND	NA	NA	NA
11th	2718	USEPA	S14	10/26/89	34.8	167.0	42.9	ND	ND	40.4	NA	NA	NA
11th	2822	USEPA	S15	10/26/89	9.9	54.5	7.2	ND	ND	8.3	NA	NA	NA
11th	2826	USEPA	S68	10/5/89	27.2	68.4	21.3	ND	ND	22.0	NA	NA	NA
11th	2902	USEPA	S72	10/5/89	10.5	35.2	5.2	ND	ND	4.8	NA	NA	NA
11th	2929	USEPA	S75	10/5/89	3.4	13.2	2.4	ND	ND	2.0	NA	NA	NA
17th	3118	USEPA	S13	10/3/89	1.3	2.5	ND	ND	ND	ND	NA	NA	NA
18th	2701	USEPA	S16	10/26/89	1.4	7.6	5.2	ND	ND	10.1	NA	NA	NA
18th	3025	USEPA	S12	10/3/89	2.7	9.3	3.3	ND	ND	1.8	NA	NA	NA
19th	3112	USEPA	S10	10/3/89	0.8	1.1	ND	ND	ND	ND	NA	NA	NA
20th	2814	USEPA	S11	10/3/89	120.0	283.0	138.0	2.5	4.0	133.0	NA	NA	NA
20th	2917	USEPA	S100	10/24/89	16.3	88.4	29.8	ND	ND	18.2	NA	NA	NA
20th	3015	USEPA	S102	10/24/89	2.2	11.3	2.5	ND	ND	ND	NA	NA	NA
20th	3141	USEPA	S9	10/3/89	ND	ND	ND	ND	ND	ND	NA	NA	NA
21st	2816	USEPA	S95	10/24/89	68.4	297.0	96.4	1.2	1.5	81.9	NA	NA	NA
21st	2825	USEPA	S97	10/24/89	73.8	306.0	95.0	ND	ND	64.3	NA	NA	NA
21st	2922	USEPA	S6	10/3/89	31.7	151.0	94.6	ND	2.0	40.7	NA	NA	NA
22nd	2826	USEPA	S5	10/3/89	67.1	227.0	NA	NA	4.0J	109.0	43.2	6.7	ND
22nd	2901	USEPA	S98	10/24/89	56.2	235.0	37.8	ND	ND	33.9	NA	NA	NA
22nd	2923	USEPA	S94	10/24/89	17.0	75.7	42.3	ND	0.6	25.6	NA	NA	NA
23rd	2817	USEPA	S93	10/24/89	91.3	384.0	113.0	1.2	2.1	76.1	NA	NA	NA
23rd	2830	USEPA	S92	10/24/89	68.7	261.0	95.2	0.9	1.4	61.2	NA	NA	NA
23rd	2911	USEPA	S91	10/24/89	65.6	343.0	273.0	1.3	2.9	103.0	NA	NA	NA
24th	2827	USEPA	S88	10/24/89	104.0	245.0	NA	NA	2.2J	85.3	42.7	6.6	ND
24th	2917	USEPA	S89	10/24/89	79.3	397.0	323.0	1.6	2.8	117.0	NA	NA	NA
24th	2935	USEPA	S90	10/24/89	17.4	122.0	93.9	ND	1.0	41.7	NA	NA	NA
Alton	1621	USEPA	S73	10/5/89	32.7	162.0	NA	NA	1.8J	57.0	27.6	ND	ND
Bildahl	2717	USEPA	S18	10/24/89	25.1	132.0	27.5	ND	ND	29.8	NA	NA	NA
Brooke	220	USEPA	S20	12/8/89	ND	ND	ND	ND	ND	ND	NA	NA	NA
Cannon	2637	USEPA	S17	10/26/89	2.2	39.6	3.8	ND	ND	6.8	NA	NA	NA
Cannon	2729	USEPA	S105	10/24/89	44.0	168.0	NA	NA	1.5J	71.2	29.5	ND	ND
Cannon	2741	USEPA	S104	10/24/89	36.8	158.0	40.4	ND	1.1	320.0	47.8	1.3J	ND
Cannon	2741	USEPA	S10	8/9/89	36.8	158.0	40.4	ND	1.1	320.0	47.8	1.3J	ND
Cannon	2822	USEPA	S52	10/4/89	24.6	140.0	42.0	ND	0.8	47.9	NA	NA	NA
Cannon	2837	USEPA	S51	10/4/89	37.0	88.3	24.1	ND	0.5	23.8	NA	NA	NA
Cannon	2904	USEPA	S54	10/4/89	15.5	35.6	NA	NA	ND	12.4	7.7	ND	ND
Cannon	2934	USEPA	S55	10/4/89	9.4	33.5	5.4	ND	ND	4.2	NA	NA	NA
Cannon	3008	USEPA	S56	10/4/89	3.3	13.2	3.1	ND	ND	2.2	NA	NA	NA
Carlson	3007	USEPA	S22	12/8/89	1.4	ND	1.9	ND	ND	ND	NA	NA	NA
Carlson	3113	USEPA	S21	12/8/89	21.9	0.6	1.9	ND	ND	ND	NA	NA	NA
Hamilton	1724	USEPA	S47	10/3/89	ND	2.1J	NA	NA	ND	ND	ND	ND	NA
Hanson	2737	USEPA	S106	10/24/89	24.8	109.0	26.3	ND	ND	24.9	NA	NA	NA
Hanson	2745	USEPA	S4	10/3/89	41.8	172.0	42.6	ND	1.9	49.1	NA	NA	NA
Hanson	2804	USEPA	S61	10/5/89	19.1	201.0	47.5	0.6	1.0	43.8	NA	NA	NA
Hanson	2833	USEPA	S60	10/5/89	23.9	52.8	17.6	ND	ND	17.8	NA	NA	NA
Hanson	2846	USEPA	S59	10/5/89	28.3	75.0	20.8	ND	ND	18.8	NA	NA	NA
Hanson	2913	USEPA	S58	10/5/89	10.6	28.3	5.3	ND	ND	4.4	NA	NA	NA
Hanson	2930	USEPA	S3	10/3/89	6.0	18.5	3.1	ND	ND	2.7	NA	NA	NA
Hanson	2941	USEPA	S15	10/3/89	26.4	57.4	19.7	ND	1.3	22.0	NA	NA	NA
Hanson	3000	USEPA	S57	10/5/89	2.8	11.2	2.5	ND	ND	1.8	NA	NA	NA
Horton	2725	USEPA	S22	10/3/89	11.4	45.4	39.6	ND	1.4	57.8	NA	NA	NA
Horton	2806	USEPA	S21	10/3/89	40.0	197.0	50.6	0.8	2.8	42.4	NA	NA	NA
Horton	2806	USEPA	S20	10/3/89	52.4	255.0	66.1	0.8	2.9	55.3	NA	NA	NA
Horton	2817	USEPA	S19	10/3/89	67.8	305.0	65.5	0.7	2.4	58.8	NA	NA	NA

• ND = Not Detected, NA = Not Analyzed, J = Estimated Value

Table 3-11 cont.
USEPA VOC Data
 (All concentrations in µg/l)

Address	Street No.	Sampling Agency	Sample No.	DATE 1989	TCE	1,1,1-TCA	cis-1,2-DCE	trans-1,2-DCE	1,2-DCA	1,1-DCA	1,1-DCE	PCE	Vinyl Chloride
Horton	2833	USEPA	S18	10/3/89	59.4	142.0	NA	NA	1.3J	47.0	28.6	2.6J	ND
Horton	2904	USEPA	S16	10/3/89	25.0	60.0	19.0	ND	1.3	21.3	NA	NA	NA
Horton	2914	USEPA	S17	10/3/89	44.0	147.0	40.3	ND	1.6	40.0	NA	NA	NA
Horton	2921	USEPA	S101	10/24/89	22.9	75.5	19.8	ND	ND	15.6	NA	NA	NA
Johnson	1625	USEPA	S48	10/4/89	ND	ND	ND	ND	ND	ND	NA	NA	NA
Kinsey	2614	USEPA	S71	10/5/89	1.2	16.7	3.4	ND	ND	9.9	NA	NA	NA
Kinsey	2712	USEPA	S67	10/5/89	33.4	156.0	39.7	ND	1.5	38.0	NA	NA	NA
Kinsey	2733	USEPA	S11	8/9/89	31.8	NA	NA	NA	NA	213.0	27.5	0.7J	ND
Kinsey	2815	USEPA	S66	10/5/89	33.7	133.0	27.7	ND	0.6	33.8	NA	NA	NA
Kinsey	2833	USEPA	S65	10/5/89	17.8	62.9	11.9	ND	ND	10.9	NA	NA	NA
Kinsey	2901	USEPA	S64	10/5/89	5.6	18.1	2.6	ND	ND	2.6	NA	NA	NA
Kinsey	2917	USEPA	S63	10/5/89	1.9	7.3	0.9	ND	ND	0.9	NA	NA	NA
Kinsey	2946	USEPA	S62	10/5/89	2.7	5.4	1.9	ND	ND	1.5	NA	NA	NA
Lapev	2706	USEPA	S10	10/26/89	58.9	143.0	NA	NA	1.9J	56.6	31.0	ND	ND
Lapev	2734	USEPA	S11	10/26/89	17.4	21.0	23.5	ND	ND	27.1	NA	NA	NA
Lapev	2746	USEPA	S86	10/5/89	29.9	158.0	29.2	ND	0.8	32.2	NA	NA	NA
Lapev	2746	USEPA	S87	10/5/89	30.0	160.0	28.4	ND	0.8	32.6	NA	NA	NA
Lapev	2814	USEPA	S12	10/26/89	16.3	65.4	14.0	ND	ND	14.2	NA	NA	NA
Lapev	2825	USEPA	S85	10/5/89	18.1	136.0	NA	NA	ND	1.9J	8.6	ND	ND
Lapev	2845	USEPA	S74	10/5/89	13.3	47.3	7.4	ND	ND	7.0	NA	NA	NA
Lapev	2911	USEPA	S76	10/5/89	3.6	14.2	2.1	ND	ND	1.9	NA	NA	NA
Lapev	3002	USEPA	S77	10/5/89	2.3	7.4	0.6	ND	ND	0.7	NA	NA	NA
Lapev	3031	USEPA	S79	10/5/89	1.4	4.8	ND	ND	ND	ND	NA	NA	NA
Lapev	3305	USEPA	S83	10/5/89	ND	ND	ND	ND	ND	ND	NA	NA	NA
Lindale	2512	USEPA	S7	10/3/89	0.9	1.3	ND	ND	ND	ND	NA	NA	NA
Lindberg	2518	USEPA	S8	10/3/89	3.1	7.7	1.9	ND	ND	1.2	NA	NA	NA
Marshall	2706	USEPA	S34	10/4/89	11.3	54.8	26.8	ND	1.0	39.9	NA	NA	NA
Marshall	2717	USEPA	S33	10/4/89	1.1	16.0	5.6	ND	ND	17.9	NA	NA	NA
Marshall	2738	USEPA	S32	10/4/89	65.6	329.0	93.0	1.1	2.5	75.3	NA	NA	NA
Marshall	2801	USEPA	S31	10/4/89	62.4	310.0	74.7	0.8	2.0	61.2	NA	NA	NA
Marshall	2837	USEPA	S30	10/4/89	39.4	156.0	40.2	ND	1.4	40.8	NA	NA	NA
Marshall	2905	USEPA	S29	10/4/89	38.3	113.0	31.5	ND	0.9	26.0	NA	NA	NA
Marshall	2925	USEPA	S103	10/24/89	19.1	44.4	14.4	ND	ND	12.5	NA	NA	NA
Marshall	2941	USEPA	S28	10/4/89	10.5	30.3	6.8	ND	ND	5.0	NA	NA	NA
Marshall	3006	USEPA	S27	10/4/89	10.6	13.5	7.6	ND	1.3	12.5	NA	NA	NA
Marshall	3030	USEPA	S26	10/4/89	5.9	3.1	3.8	ND	2.0	9.1	NA	NA	NA
Marshall	3111	USEPA	S25	10/4/89	1.4	2.6	ND	ND	ND	ND	NA	NA	NA
Marshall	3133	USEPA	S24	10/4/89	1.8	3.2	ND	ND	ND	ND	NA	NA	NA
New Milford	606	USEPA	S25	12/8/89	21.7	37.2	0.7	ND	ND	0.9	NA	NA	NA
Potter	3318	USEPA	S45	10/4/89	ND	ND	ND	ND	ND	ND	NA	NA	NA
Ranger	823	USEPA	S24	12/8/89	17.5	41.3	12.9	ND	1.9	16.3	NA	NA	NA
Sandy Hlw	2106	USEPA	S84	10/5/89	ND	ND	ND	ND	ND	ND	NA	NA	NA
Sewell	2702	USEPA	S1	10/3/89	1.5	15.6	4.7	ND	ND	14.7	NA	NA	NA
Sewell	2722	USEPA	S44	10/4/89	2.9	27.5	11.5	ND	ND	29.9	NA	NA	NA
Sewell	2742	USEPA	S43	10/4/89	0.5	5.8	0.6	ND	ND	0.8	NA	NA	NA
Sewell	2806	USEPA	S41	10/4/89	40.5	222.0	NA	NA	1.6J	47.3	26.0	2.3J	ND
Sewell	2813	USEPA	S42	10/4/89	38.8	227.0	41.4	ND	1.7	44.0	NA	NA	NA
Sewell	2841	USEPA	S40	10/4/89	24.2	106.0	35.3	ND	1.1	36.7	NA	NA	NA
Sewell	2922	USEPA	S2	10/3/89	18.6	49.5	14.1	ND	ND	11.8	NA	NA	NA
Sewell	3002	USEPA	S39	10/4/89	9.5	26.4	5.9	ND	ND	4.1	NA	NA	NA
Sewell	3032	USEPA	S38	10/4/89	2.6	9.0	2.1	ND	ND	1.4	NA	NA	NA
Sewell	3131	USEPA	S37	10/4/89	ND	ND	ND	ND	ND	ND	NA	NA	NA
Sewell	3141	USEPA	S36	10/4/89	ND	ND	ND	ND	ND	ND	NA	NA	NA

• ND = Not Detected, NA = Not Analyzed, J = Estimated Value

Table 3-12
IDPH VOC Data
(All concentrations in µg/l)

Address	Street No.	Sampling Agency	DATE	TCE	1,1,1-TCA	cis-1,2-DCE	trans-1,2-DCE	1,2-DCA	1,1-DCA	1,1-DCE	PCE	Vinyl Chloride
7th	3133	IDPH	12/4/89	0.6	1.7	ND	ND	ND	ND	ND	0.2	ND
7th	3209	IDPH	12/4/89	0.9	2.9	ND	ND	ND	ND	ND	3.3	ND
7th	3217	IDPH	12/4/89	0.2	1.2	ND	ND	ND	ND	ND	0.9	ND
7th	3241	IDPH	12/4/89	ND	0.4	ND	ND	ND	ND	ND	0.7	ND
7th	3317	IDPH	12/8/89	0.9	2.0	ND	ND	ND	ND	ND	Trace	ND
8th	2810	IDPH	12/8/89	5.6	ND	ND	Trace	22.5	Trace	2.8	Trace	ND
8th	2922	IDPH	9/19/89	1.0	9.3	ND	ND	ND	ND	ND	ND	ND
8th	2929	IDPH	12/5/89	2.6	2.9	ND	ND	ND	Trace	ND	Trace	ND
8th	2940	IDPH	9/19/89	2.0	8.5	ND	ND	ND	ND	ND	ND	ND
8th	3219	IDPH	8/9/88	2.8	4.8	ND	ND	ND	ND	0.1	14.0	ND
8th	3330	IDPH	12/12/89	ND	ND	ND	ND	1.3	ND	ND	ND	ND
9th	2726	IDPH	9/19/89	44.2	217.0	ND	ND	ND	24.2	1.3	ND	ND
9th	2905	IDPH	10/25/89	3.2	7.9	ND	ND	ND	ND	0.6	<1	ND
9th	3018	IDPH	12/8/89	ND	ND	ND	ND	0.6	ND	ND	Trace	ND
9th	3110	IDPH	11/7/89	1.7	3.0	ND	ND	ND	ND	ND	ND	ND
9th	3121	IDPH	11/7/89	2.0	3.0	ND	ND	ND	ND	ND	0.4	ND
9th	3125	IDPH	12/14/89	1.5	ND	ND	ND	2.4	ND	ND	Trace	ND
9th	3137	IDPH	12/4/89	1.4	ND	ND	ND	3.9	ND	ND	1.0	ND
9th	3214	IDPH	12/5/89	1.7	2.6	ND	ND	ND	Trace	ND	Trace	ND
9th	3238	IDPH	12/12/89	ND	ND	ND	ND	1.7	ND	ND	Trace	ND
9th	3242	IDPH	12/5/89	0.6	1.8	ND	ND	ND	ND	ND	Trace	ND
9th	3321	IDPH	12/12/89	ND	ND	ND	ND	ND	ND	ND	ND	ND
9th	3326	IDPH	12/12/89	ND	ND	ND	ND	ND	ND	ND	Trace	ND
10th	3125	IDPH	12/4/89	ND	2.8	ND	ND	ND	ND	ND	ND	ND
10th	3142	IDPH	12/4/89	2.1	2.8	ND	ND	ND	ND	ND	1.5	ND
10th	3201	IDPH	12/5/89	2.1	3.4	ND	ND	ND	Trace	Trace	Trace	ND
10th	3209	IDPH	12/12/89	ND	ND	ND	ND	ND	ND	ND	ND	ND
10th	3210	IDPH	12/12/89	1.5	2.6	ND	ND	ND	Trace	Trace	Trace	ND
10th	3221	IDPH	8/9/88	ND	1.7	ND	ND	ND	ND	ND	0.7	ND
10th	3236	IDPH	12/12/89	0.9	1.7	ND	ND	ND	Trace	ND	Trace	ND
10th	3245	IDPH	12/5/89	0.6	1.6	ND	ND	ND	ND	ND	Trace	ND
11th	2706	IDPH	9/12/89	65.7	352.6	ND	11.6	ND	40.6	50.4	1.6	ND
11th	2707	IDPH	12/12/89	1.6	5.9	ND	Trace	0.5	Trace	2.5	Trace	ND
11th	2734	IDPH	12/12/89	55.4	152.8	ND	Trace	1.6	Trace	30.0	Trace	ND
11th	2744	IDPH	12/12/89	57.7	158.8	ND	Trace	1.6	Trace	30.0	Trace	ND
11th	2826	IDPH	8/9/88	ND	ND	ND	ND	ND	ND	ND	ND	ND
11th	2834	IDPH	12/12/89	18.6	41.7	ND	ND	0.5	Trace	ND	Trace	ND
11th	2837	IDPH	12/12/89	17.0	37.0	ND	Trace	ND	Trace	4.8	Trace	ND
11th	2842	IDPH	12/12/89	14.8	29.8	ND	Trace	ND	Trace	3.6	Trace	ND
11th	2901	IDPH	12/12/89	9.3	23.9	ND	ND	Trace	Trace	Trace	Trace	ND
11th	2926	IDPH	12/12/89	4.4	10.5	ND	Trace	ND	Trace	1.0	Trace	ND
11th	2942	IDPH	12/12/89	3.6	9.7	ND	Trace	ND	Trace	1.0	ND	ND
11th	3132	IDPH	12/12/89	2.1	3.2	ND	ND	ND	Trace	ND	Trace	ND
16th	3146	IDPH	11/28/89	ND	ND	ND	ND	ND	ND	ND	ND	ND
17th	3012	IDPH	12/5/89	5.0	21.8	ND	Trace	ND	Trace	2.4	Trace	ND
17th	3110	IDPH	11/6/89	1.0	1.9	ND	ND	ND	ND	ND	Trace	ND
17th	3120	IDPH	8/21/89	1.5	2.7	ND	ND	ND	ND	0.3	ND	ND
17th	3141	IDPH	11/6/89	ND	ND	ND	ND	ND	ND	ND	ND	ND
18th	2601	IDPH	10/25/89	1.0	29.4	ND	ND	ND	1.8	1.8	<1	ND
18th	2603	IDPH	10/25/89	1.3	38.9	ND	ND	ND	3.2	ND	<1	ND
18th	2604	IDPH	10/25/89	ND	<1	ND	ND	ND	ND	ND	ND	ND
18th	2606	IDPH	10/25/89	<1	ND	ND	ND	ND	1.8	ND	ND	ND
18th	3007	IDPH	11/7/89	17.8	49.4	ND	ND	ND	11.0	4.7	4.5	ND
18th	3035	IDPH	11/6/89	2.7	8.8	ND	ND	ND	Trace	Trace	Trace	ND
18th	3110	IDPH	12/11/89	ND	2.2	ND	ND	ND	ND	ND	ND	ND
18th	3117	IDPH	11/28/89	0.7	1.3	ND	ND	ND	ND	ND	ND	ND
18th	3146	IDPH	8/21/89	ND	ND	ND	ND	ND	ND	ND	ND	ND
19th	2908	IDPH	9/19/89	45.3	192.4	ND	ND	ND	13.7	1.3	ND	ND

• ND = Not Detected

Table 3-12 cont.
IDPH VOC Data

(All concentrations in µg/l)

Address	Street No.	Sampling Agency	DATE	TCE	1,1,1-TCA	cis-1,2-DCE	trans-1,2-DCE	1,2-DCA	1,1-DCA	1,1-DCE	PCE	Vinyl Chloride
19th	3019	IDPH	11/28/89	2.0	4.5	ND	ND	ND	ND	ND	0.6	ND
19th	3101	IDPH	11/28/89	ND	ND	ND	ND	ND	ND	ND	ND	ND
19th	3114	IDPH	11/28/89	ND	ND	ND	ND	ND	ND	ND	ND	ND
19th	3117	IDPH	11/6/89	1.4	2.5	ND	ND	ND	ND	ND	Trace	ND
19th	3120	IDPH	11/28/89	0.5	ND	ND	ND	ND	ND	ND	ND	ND
19th	3121	IDPH	11/28/89	ND	ND	ND	ND	ND	ND	ND	ND	ND
19th	3129	IDPH	8/21/89	ND	ND	ND	ND	ND	ND	ND	ND	ND
20th	2814	IDPH	9/26/89	121.7	57.5	ND	ND	ND	46.8	<1	15.1	ND
20th	2822	IDPH	9/26/89	112.5	436.0	ND	ND	ND	19.5	4.0	1.9	ND
20th	2913	IDPH	9/26/89	44.0	204.8	ND	ND	ND	19.2	2.2	6.5	ND
20th	2923	IDPH	9/26/89	8.2	83.1	ND	ND	ND	3.1	<1	3.8	ND
20th	2930	IDPH	9/26/89	21.5	164.8	ND	ND	ND	8.0	1.4	1.5	ND
20th	3024	IDPH	11/28/89	0.9	0.6	ND	ND	ND	ND	ND	ND	ND
20th	3025	IDPH	11/6/89	4.1	18.0	ND	ND	0.4	2.4	ND	2.1	ND
20th	3025	IDPH	11/28/89	4.3	15.4	ND	ND	ND	2.8	ND	1.8	ND
20th	3110	IDPH	12/4/89	2.9	2.3	ND	ND	ND	ND	ND	ND	ND
20th	3141	IDPH	8/21/89	ND	ND	ND	ND	ND	ND	ND	ND	ND
21st	2923	IDPH	9/26/89	31.4	89.3	ND	ND	ND	2.3	1.3	6.8	ND
21st	2944	IDPH	9/26/89	19.9	95.3	ND	ND	ND	6.7	<1	5.8	ND
23rd	2912	IDPH	9/26/89	97.1	436.0	ND	ND	ND	34.4	3.1	4.3	ND
23rd	2927	IDPH	9/26/89	9.0	68.1	ND	ND	ND	5.5	<1	ND	ND
23rd	2929	IDPH	10/17/89	4.7	32.4	ND	ND	ND	14.8	4.7	ND	ND
23rd	2931	IDPH	9/26/89	7.0	82.2	ND	ND	ND	6.0	<1	ND	ND
23rd	3115	IDPH	11/7/89	ND	ND	ND	ND	ND	ND	ND	Trace	ND
Alton	2118	IDPH	10/25/89	2.7	20.4	ND	ND	ND	6.4	0.7	1.3	ND
Bildahl	3029	IDPH	12/4/89	0.3	ND	ND	ND	ND	ND	ND	ND	ND
Bildahl	3221	IDPH	12/4/89	1.3	1.3	ND	ND	ND	ND	ND	ND	ND
Bildahl	3237	IDPH	12/4/89	0.8	1.0	ND	ND	ND	0.5	ND	ND	ND
Bildahl	3242	IDPH	1/10/89	2.0	2.5	ND	ND	ND	ND	ND	<1	ND
Bildahl	3318	IDPH	12/12/89	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bildahl	3324	IDPH	12/12/89	ND	ND	ND	ND	ND	ND	ND	ND	ND
Brooke	1004	IDPH	12/5/89	0.5	1.9	ND	ND	ND	Trace	ND	Trace	ND
Brooke	1113	IDPH	12/5/89	0.8	2.6	ND	ND	ND	ND	ND	ND	ND
Brooke	1317	IDPH	12/4/89	1.0	3.2	ND	ND	ND	ND	ND	ND	ND
Cannon	2741	IDPH	8/9/88	140.0	140.0	ND	ND	ND	13.0	2.0	4.8	ND
Cannon	2801	IDPH	10/17/89	30.5	97.5	ND	ND	ND	28.5	11.4	1.1	ND
Cannon	2802	IDPH	9/12/89	52.7	200.0	ND	ND	9.0	39.2	51.1	6.6	ND
Cannon	2810	IDPH	9/12/89	60.6	283.2	ND	ND	7.2	36.9	41.8	5.3	ND
Cannon	2817	IDPH	9/12/89	20.7	83.5	ND	ND	ND	24.0	24.7	0.8	ND
Cannon	2826	IDPH	8/21/89	31.0	177.0	23.0	ND	1.8	34.0	25.0	1.2	ND
Cannon	2837	IDPH	10/17/89	47.1	89.1	ND	ND	ND	16.3	9.4	0.7	ND
Cannon	2842	IDPH	9/8/88	40.0	86.0	ND	ND	ND	11.0	1.2	0.9	ND
Cannon	2904	IDPH	9/8/88	6.4	56.0	ND	ND	ND	2.0	1.4	0.2	ND
Cannon	2915	IDPH	10/17/89	14.3	49.4	ND	ND	ND	5.8	3.4	0.5	ND
Cannon	2918	IDPH	11/7/89	16.2	38.8	ND	ND	ND	4.8	ND	ND	ND
Cannon	3004	IDPH	11/28/89	6.3	14.7	ND	ND	ND	1.5	ND	ND	ND
Collins	3201	IDPH	12/4/89	2.8	4.7	ND	ND	ND	ND	ND	4.8	ND
Collins	3202	IDPH	12/4/89	1.1	3.7	ND	ND	ND	ND	ND	6.5	ND
Collins	3230	IDPH	12/4/89	0.4	1.3	ND	ND	ND	ND	ND	1.5	ND
Collins	3234	IDPH	12/4/89	0.6	ND	ND	ND	ND	ND	ND	0.8	ND
Collins	3310	IDPH	12/5/89	0.9	2.2	ND	ND	ND	Trace	ND	Trace	ND
Collins	3317	IDPH	12/12/89	1.1	2.7	ND	Trace	ND	ND	ND	Trace	ND
Hamilton	1709	IDPH	11/6/89	0.6	1.6	ND	ND	ND	ND	ND	Trace	ND
Hamilton	1717	IDPH	11/6/89	1.0	1.8	ND	ND	ND	ND	ND	Trace	ND
Hanson	2633	IDPH	9/12/89	2.7	13.9	ND	ND	ND	ND	14.0	0.9	ND
Hanson	2714	IDPH	10/17/89	28.3	141.0	ND	ND	ND	65.4	17.2	0.3	ND
Hanson	2802	IDPH	9/12/89	68.5	287.5	ND	ND	8.4	39.6	48.0	3.3	ND
Hanson	2804	IDPH	9/13/88	68.0	98.0	ND	ND	ND	25.0	3.8	3.2	ND

523.9

574.9

• ND = Not Detected

Table 3-12 cont.
IDPH VOC Data

(All concentrations in µg/l)

Address	Street No.	Sampling Agency	DATE	TCE	1,1,1-TCA	cis-1,2-DCE	trans-1,2-DCE	1,2-DCA	1,1-DCA	1,1-DCE	PCE	Vinyl Chloride
Hanson	2804	IDPH	6/20/89	73.4	204.0	ND	ND	0.9	ND	52.2	3.3	ND
Hanson	2821	IDPH	9/12/89	40.0	200.0	ND	ND	ND	28.2	32.3	1.6	ND
Hanson	2834	IDPH	9/19/89	29.6	105.8	ND	ND	ND	10.2	0.7	ND	ND
Hanson	2842	IDPH	9/19/89	32.6	101.0	ND	ND	ND	10.9	2.9	ND	ND
Hanson	2901	IDPH	9/26/89	20.3	49.3	ND	ND	ND	5.4	<1	<1	ND
Hanson	2902	IDPH	9/26/89	27.5	97.6	ND	ND	ND	9.0	1.0	1.0	ND
Hanson	2906	IDPH	1/10/89	23.0	31.0	ND	1.0	ND	ND	ND	ND	ND
Hanson	2907	IDPH	10/17/89	14.3	49.7	ND	ND	ND	5.8	3.7	0.4	ND
Hanson	2911	IDPH	10/17/89	13.3	32.1	ND	ND	ND	4.7	2.7	0.4	ND
Hanson	2938	IDPH	11/6/89	6.2	16.7	ND	ND	ND	1.8	ND	ND	ND
Hanson	2946	IDPH	10/17/89	14.8	13.4	ND	ND	ND	14.4	6.1	0.2	ND
Harrison	2313	IDPH	12/12/89	ND	12.3	ND	ND	ND	ND	0.7	Trace	ND
Horton	2717	IDPH	10/17/89	1.7	16.0	ND	ND	ND	28.3	3.6	0.5	ND
Horton	2726	IDPH	9/12/89	2.7	78.6	ND	ND	5.6	22.8	24.8	ND	ND
Horton	2738	IDPH	9/19/89	92.8	411.6	ND	ND	ND	36.5	2.4	ND	ND
Horton	2741	IDPH	9/12/89	68.1	100.0	ND	ND	11.6	48.1	60.2	8.6	ND
Horton	2742	IDPH	9/12/89	75.8	434.3	108.4	ND	13.2	50.5	63.4	4.3	ND
Horton	2746	IDPH	9/12/89	64.3	400.0	ND	ND	13.6	50.6	62.6	2.6	ND
Horton	2805	IDPH	9/19/89	43.1	218.4	ND	ND	ND	23.9	1.5	ND	ND
Horton	2811	IDPH	10/17/89	47.6	249.0	ND	ND	ND	62.3	26.2	3.8	ND
Horton	2818	IDPH	9/12/89	57.6	205.1	ND	ND	7.4	35.6	29.5	3.2	ND
Horton	2834	IDPH	9/19/89	54.1	228.0	ND	ND	ND	27.5	2.8	ND	ND
Horton	2835	IDPH	9/19/89	26.9	197.3	ND	ND	ND	13.3	1.0	ND	ND
Horton	2838	IDPH	9/19/89	51.9	218.8	ND	ND	ND	22.2	1.3	ND	ND
Horton	2905	IDPH	10/17/89	51.6	133.0	ND	ND	ND	44.8	9.4	1.2	ND
Horton	2922	IDPH	8/8/88	51.0	110.0	ND	ND	ND	11.0	1.3	2.0	ND
Horton	2924	IDPH	10/25/89	8.5	26.5	ND	ND	ND	ND	3.2	<1	ND
Horton	2926	IDPH	8/9/88	12.0	23.0	ND	ND	ND	9.1	1.1	2.7	ND
Horton	2942	IDPH	10/17/89	12.6	13.7	ND	ND	ND	7.5	4.2	0.4	ND
Horton	3001	IDPH	11/28/89	8.7	30.1	ND	ND	ND	4.4	ND	1.8	ND
Horton	3006	IDPH	8/9/88	2.7	1.8	ND	ND	1.7	ND	ND	2.6	ND
Horton	3037	IDPH	11/28/89	0.9	1.1	ND	ND	ND	ND	ND	ND	ND
Horton	3133	IDPH	11/7/89	1.5	2.6	ND	ND	ND	ND	ND	ND	ND
Johnson	1613	IDPH	12/5/89	ND	ND	ND	ND	ND	ND	ND	ND	ND
Johnson	1631	IDPH	12/4/89	ND	ND	ND	ND	ND	ND	ND	ND	ND
Johnson	1637	IDPH	12/11/89	ND	ND	ND	ND	ND	ND	ND	ND	ND
Johnson	1638	IDPH	12/5/89	ND	ND	ND	ND	ND	ND	ND	Trace	ND
Johnson	1641	IDPH	12/11/89	ND	ND	ND	ND	ND	ND	ND	ND	ND
Johnson	1642	IDPH	12/11/89	ND	ND	ND	ND	ND	ND	ND	ND	ND
Johnson	1711	IDPH	12/11/89	ND	ND	ND	ND	ND	ND	ND	ND	ND
Johnson	1726	IDPH	12/11/89	ND	ND	ND	ND	ND	ND	ND	ND	ND
Johnson	1746	IDPH	12/5/89	ND	ND	ND	ND	ND	ND	ND	Trace	ND
Kinsey	2726	IDPH	6/20/89	63.8	161.0	ND	ND	1.0	ND	53.9	1.8	ND
Kinsey	2803	IDPH	9/12/89	24.1	219.0	ND	ND	5.2	30.9	34.3	1.5	ND
Kinsey	2806	IDPH	10/17/89	50.8	197.0	ND	ND	ND	50.2	23.5	1.3	ND
Kinsey	2813	IDPH	9/19/89	20.4	193.2	ND	ND	ND	15.1	0.9	ND	ND
Kinsey	2822	IDPH	9/19/89	28.2	182.6	ND	ND	ND	13.8	0.8	ND	ND
Kinsey	2826	IDPH	10/25/89	58.9	193.8	ND	ND	ND	ND	51.9	3.5	ND
Kinsey	2829	IDPH	10/17/89	15.1	94.3	ND	ND	ND	14.7	8.3	0.2	ND
Kinsey	2829	IDPH	1/10/89	35.0	37.0	ND	3.0	ND	ND	ND	ND	ND
Kinsey	2833	IDPH	9/19/89	20.9	81.0	ND	ND	ND	12.6	0.8	ND	ND
Kinsey	2909	IDPH	6/20/89	7.0	13.9	ND	ND	0.2	ND	3.5	0.2	ND
Kinsey	2920	IDPH	10/17/89	7.5	29.1	ND	ND	ND	3.9	2.3	0.2	ND
Kinsey	2929	IDPH	12/4/89	5.0	11.4	2.9	ND	ND	2.1	ND	ND	ND
Kinsey	3002	IDPH	11/7/89	2.8	10.6	ND	ND	ND	ND	0.9	ND	ND
Lapey	2746	IDPH	9/26/89	50.0	224.2	ND	ND	ND	25.2	2.7	4.1	ND
Lapey	2817	IDPH	9/12/89	21.0	114.2	ND	ND	2.9	17.5	23.6	ND	ND
Lapey	2838	IDPH	9/19/89	17.5	50.6	ND	ND	ND	6.5	0.5	ND	ND

543

749.9

• ND = Not Detected

Table 3-12 cont.
IDPH VOC Data

(All concentrations in µg/l)

Address	Street No.	Sampling Agency	DATE	TCE	1,1,1-TCA	cis-1,2-DCE	trans-1,2-DCE	1,2-DCA	1,1-DCA	1,1-DCE	PCE	Vinyl Chloride
Lapey	2918	IDPH	9/26/89	<1	1.5	ND	ND	ND	ND	ND	ND	ND
Lapey	3038	IDPH	12/12/89	1.7	3.0	ND	ND	ND	Trace	ND	Trace	ND
Lapey	3116	IDPH	1/7/89	1.3	3.0	ND	ND	ND	ND	ND	ND	ND
Lapey	3117	IDPH	11/7/89	1.8	2.7	ND	ND	ND	ND	ND	ND	ND
Lapey	3121	IDPH	11/7/89	1.9	2.7	ND	ND	ND	ND	ND	ND	ND
Lapey	3125	IDPH	11/7/89	2.1	3.8	ND	ND	ND	ND	ND	ND	ND
Lapey	3130	IDPH	11/7/89	2.0	4.5	ND	ND	ND	ND	ND	ND	ND
Lapey	3205	IDPH	12/12/89	1.6	2.7	ND	ND	ND	ND	ND	Trace	ND
Lapey	3230	IDPH	12/12/89	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lapey	3245	IDPH	12/4/89	ND	0.7	ND	ND	ND	ND	ND	ND	ND
Lindale	2412	IDPH	6/20/89	0.7	1.5	ND	ND	ND	ND	ND	0.3	ND
Lindale	2424	IDPH	6/20/89	1.3	2.2	ND	ND	ND	ND	ND	1.0	ND
Lindale	2612	IDPH	11/6/89	1.3	1.7	ND	ND	ND	ND	ND	Trace	ND
Lindberg	2402	IDPH	11/28/89	0.6	ND	ND	ND	ND	ND	ND	ND	ND
Lindberg	2407	IDPH	11/6/89	1.6	0.6	ND	ND	ND	Trace	ND	Trace	ND
Lindberg	2413	IDPH	8/9/88	1.1	2.1	ND	ND	ND	ND	ND	ND	ND
Lindberg	2421	IDPH	8/9/88	0.7	ND	ND	ND	ND	ND	ND	ND	ND
Lindberg	2501	IDPH	11/28/89	1.4	0.8	ND	ND	ND	ND	ND	ND	ND
Lindberg	2506	IDPH	1/28/89	2.9	6.0	ND	ND	ND	ND	ND	0.8	ND
Lindberg	2512	IDPH	12/5/89	2.9	5.5	ND	Trace	ND	Trace	0.8	Trace	ND
Lindberg	2515	IDPH	11/6/89	2.2	3.7	ND	ND	ND	ND	0.6	Trace	ND
Lindberg	2518	IDPH	11/6/89	4.2	11.2	ND	ND	ND	ND	1.2	Trace	ND
Lindberg	2618	IDPH	8/9/88	6.1	16.0	ND	ND	ND	1.0	0.4	2.9	ND
Lyrar	1645	IDPH	12/11/89	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lyrar	1650	IDPH	12/11/89	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lyrar	1714	IDPH	12/11/89	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lyrar	1738	IDPH	12/5/89	ND	ND	ND	ND	ND	ND	ND	ND	ND
Marshall	2641	IDPH	11/7/89	7.7	157.0	ND	ND	ND	13.4	ND	1.4	ND
Marshall	2721	IDPH	12/4/89	1.8	18.1	13.5	ND	ND	31.6	4.6	ND	ND
Marshall	2722	IDPH	9/12/89	4.1	54.0	ND	ND	ND	12.4	13.3	<1	ND
Marshall	2730	IDPH	12/4/89	23.7	108.0	64.5	ND	ND	77.9	28.6	ND	ND
Marshall	2734	IDPH	11/28/89	37.5	170.5	50.6	ND	ND	80.9	19.2	ND	ND
Marshall	2737	IDPH	11/28/89	ND	1.8	ND	ND	ND	ND	ND	0.5	ND
Marshall	2745	IDPH	10/17/89	82.9	295.0	ND	ND	ND	67.6	30.0	3.9	ND
Marshall	2813	IDPH	8/21/89	35.0	154.0	26.0	ND	3.1	34.0	38.0	1.7	ND
Marshall	2813	IDPH	12/12/89	ND	ND	ND	ND	ND	ND	ND	ND	ND
Marshall	2825	IDPH	9/19/89	58.2	246.0	ND	ND	ND	30.0	1.6	ND	ND
Marshall	2830	IDPH	9/19/89	40.1	208.4	ND	ND	ND	18.7	1.1	ND	ND
Marshall	2838	IDPH	8/21/89	44.0	187.0	27.0	1.1	2.9	39.0	36.0	ND	ND
Marshall	2845	IDPH	10/17/89	47.9	93.6	ND	ND	ND	26.9	11.9	0.9	ND
Marshall	2909	IDPH	9/19/89	32.6	98.1	ND	ND	ND	8.8	1.2	ND	ND
Marshall	2926	IDPH	2/7/89	57.0	24.0	ND	2.0	ND	ND	ND	ND	ND
Marshall	2937	IDPH	10/17/89	5.2	7.0	ND	ND	ND	6.5	2.3	ND	ND
Marshall	2946	IDPH	10/17/89	5.0	13.8	ND	ND	ND	1.8	1.1	0.2	ND
Marshall	3018	IDPH	10/25/89	4.0	13.1	ND	ND	ND	3.1	1.4	1.6	ND
Marshall	3038	IDPH	10/25/89	2.3	0.5	ND	ND	ND	3.7	0.1	ND	ND
Marshall	3101	IDPH	2/7/89	2.0	<1	ND	ND	ND	ND	ND	ND	ND
Marshall	3138	IDPH	12/12/89	1.7	2.6	ND	ND	ND	ND	ND	Trace	ND
Pershing	1637	IDPH	11/6/89	2.1	4.1	ND	ND	ND	ND	ND	ND	ND
Pershing	1802	IDPH	12/14/89	2.4	ND	ND	Trace	1.2	Trace	1.3	ND	ND
Potter	2700	IDPH	9/12/89	23.4	111.8	ND	6.7	ND	25.2	32.2	2.2	ND
Potter	2825	IDPH	9/19/89	40.8	192.5	ND	ND	ND	15.8	0.9	ND	ND
Potter	2826	IDPH	10/25/89	27.5	93.1	ND	ND	ND	10.2	9.1	<1	ND
Potter	2837	IDPH	8/21/89	24.0	113.0	18.0	ND	1.4	25.0	20.0	1.2	ND
Potter	2933	IDPH	11/28/89	12.0	29.8	ND	ND	0.3	2.9	ND	0.6	ND
Reed	1825	IDPH	10/25/89	35.0	92.1	ND	ND	ND	14.4	8.5	0.5	ND
Reed	1930	IDPH	10/25/89	46.6	93.0	ND	ND	ND	46.3	12.8	1.5	ND
Sandy Hw	1734	IDPH	12/5/89	ND	ND	ND	ND	ND	Trace	ND	ND	ND

• ND = Not Detected

Table 3-12 cont.
IDPH VOC Data

(All concentrations in µg/l)

Address	Street No.	Sampling Agency	DATE	TCE	1,1,1-TCA	cis-1,2-DCE	trans-1,2-DCE	1,2-DCA	1,1-DCA	1,1-DCE	PCE	Vinyl Chloride
Sandy Hlw	1810	IDPH	12/5/89	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sandy Hlw	1812	IDPH	12/5/89	ND	ND	ND	ND	ND	ND	ND	Trace	ND
Sandy Hlw	1816	IDPH	12/14/89	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sewell	2718	IDPH	10/25/89	1.8	ND	ND	ND	15.6	27.2	3.2	0.6	ND
Sewell	2722	IDPH	8/9/88	0.5	3.2	ND	ND	ND	0.2	ND	ND	ND
Sewell	2814	IDPH	9/12/89	73.7	90.0	ND	ND	9.1	55.6	51.0	5.0	ND
Sewell	2822	IDPH	9/12/89	73.2	210.0	ND	2.2	9.2	54.2	49.0	6.7	ND
Sewell	2826	IDPH	9/19/89	47.9	215.0	ND	ND	ND	18.8	1.1	ND	ND
Sewell	2902	IDPH	6/20/89	21.8	38.9	ND	ND	ND	ND	10.9	0.3	ND
Sewell	2909	IDPH	9/26/89	25.1	88.9	ND	ND	ND	6.7	ND	1.1	ND
Sewell	2909	IDPH	2/7/89	22.0	36.0	ND	2.0	ND	ND	ND	1.0	ND
Sewell	2917	IDPH	9/26/89	28.1	38.6	ND	ND	ND	4.9	<1	ND	ND
Sewell	2921	IDPH	9/26/89	19.5	107.3	ND	ND	ND	4.4	<1	1.0	ND
Sewell	2930	IDPH	9/26/89	19.8	111.2	ND	ND	ND	4.6	<1	1.4	ND
Sewell	2930	IDPH	8/21/89	13.0	28.0	6.9	1.1	0.7	7.3	5.9	1.0	ND
Sewell	2934	IDPH	12/25/89	17.8	48.0	ND	ND	ND	7.3	3.2	1.5	ND
Sewell	3016	IDPH	10/25/89	ND	<1	ND	ND	ND	ND	ND	ND	ND
Sewell	3026	IDPH	10/25/89	9.9	7.7	ND	ND	ND	19.0	4.4	<1	ND
Sewell	3040	IDPH	10/25/89	3.4	8.6	ND	ND	ND	1.5	0.9	0.9	ND
Sewell	3133	IDPH	12/4/89	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sewell	3136	IDPH	11/7/89	2.3	3.9	ND	ND	ND	ND	ND	ND	ND
Sewell	3138	IDPH	11/7/89	2.1	3.4	ND	ND	ND	ND	ND	<1	ND
Sewell	3142	IDPH	11/7/89	1.8	3.0	ND	ND	ND	ND	ND	ND	ND
Wills	1201	IDPH	9/12/89	<1	1.5	ND	ND	ND	ND	ND	<1	ND
Wills	1610	IDPH	10/25/89	37.5	133.0	ND	ND	ND	33.6	12.8	0.9	ND
Wills	1703	IDPH	11/7/89	73.9	220.0	ND	ND	ND	37.0	42.8	1.7	ND
Wills	1920	IDPH	9/12/89	50.0	260.0	ND	ND	9.8	39.7	49.2	4.3	ND
Wills	1935	IDPH	8/21/89	45.0	210.0	42.0	1.1	3.4	55.0	30.0	2.1	ND

• ND = Not Detected

7/25/90
Range
ND - 743.2

7/25/90 10:00 AM

conservative contouring approach was used to produce the plume contour maps in this report, meaning that the contour maps depict a worst-case scenario, showing the maximum contaminant concentration in any given area that is consistent with the data. For example, in cases where contamination of laboratory and field blanks indicated that the concentrations reported for the samples may exceed the actual concentration in the groundwater, the numerical concentrations were plotted on the maps as 'less than' (<) the reported values, but the maps were contoured as if the reported value was actually due entirely to groundwater contamination. Similarly, in some areas where isolated samples showed high concentration values separated by large distances, the isolated points were contoured to represent a single linear feature. Where multiple or duplicate samples were collected at a single location, the highest of the reported concentrations was plotted on the maps. This conservative contouring approach was followed to protect the public health by presenting the highest contaminant concentrations that are consistent with the data. However, it must be emphasized that the plume maps presented in this report are interpretations based on the set of data that is presented on the maps. The further removed a location is from a data point, the more interpretive are the contours. It should be noted that the density of data points in the area west of 8th Street is lower than that in the eastern portion of the study area; consequently, the broad features depicted in the western portion of the study area are more open to interpretation than are features in the eastern part of the study area.

3.2.2 DISTRIBUTION AND LEVELS OF VOC CONTAMINATION

Maps depicting the plume of VOC-contaminated groundwater are presented in Figures 3-4 through 3-20, which are included in the separately bound map packet that accompanies this report. In this section, the general features of the plume maps are described briefly. The reader is encouraged to refer to the maps for greater detail.

3.2.2.1 IEPA/USEPA Data

Although each plume map has its own unique aspects, many of the maps share several common features. In general, the maps depict a west-northwest trending plume with an axis of high concentration that runs approximately from 24th Street and Reed Avenue to 9th Street and Alton Avenue. West of 9th Street and Alton Avenue, the plume appears to bend to the southwest and become broader and flatter. Contaminant concentrations vary smoothly from location to location for the most part, and the plume appears to be roughly symmetrical about the axis of high concentration. Isolated hot spots, caused by 1 or 2 sample points appear at several locations in the study area, but these locations are not hot spots on each of the contaminant plume maps, indicating that these isolated locations contain a different group of contaminants than the main body of the plume. The features described above apply to the general distribution of TCE, 1,1,1-TCA, cis-1,2-DCE, 1,2-DCA, 1,1-DCA, and 1,1-DCE in the study area.

The tetrachloroethene (PCE) plume map (Figure 3-18) differs significantly from the general features described above. There appears to be a west-northwest trending linear feature in the vicinity of 24th Street and Reed Avenue as on the other VOC plume maps, but the feature does not extend as far west as the same feature on the other maps. In addition, a second linear feature trends west-southwest from the vicinity of 10th Street and Sawyer Road to the southwest corner of the study area. Samples from the west-central and northwestern portions of the study area show pervasive PCE contamination at low to intermediate levels (0 to 10 ppb). Some of the differences between the PCE plume map and the other VOC plume maps can be attributed to a significantly lower sample density for PCE than for the other VOCs, because many USEPA samples were not analyzed for PCE. However, the linear feature in the southwestern part of the study area is supported by a number of IEPA sample points, which did not show a similar feature for other contaminants. The presence of this southwestern linear feature suggests the existence of a plume of PCE contamination that is independent

of the main plume. It must be noted, however, that contaminant levels in this southwestern plume are low (<3 ppb). No Safe Drinking Water Act MCL has been established for PCE, but an MCL of 5 ppb has been proposed (USEPA, 1989).

Vinyl chloride and trans-1,2-DCE were detected at a few scattered locations across the study area, and their distribution does not appear to form a plume.

3.2.2.2 IDPH Data

The contour maps for the IDPH data show some features that are similar to those on the IEPA/USEPA contour maps. In general, for TCE, 1,1,1-TCA, and 1,1-DCA, there appears to be a plume that trends west-northwest and which extends from roughly 24th Street and Reed Avenue to approximately Alton Avenue and 9th Street. The remaining plume maps for the IDPH samples differ somewhat from the corresponding maps for the IEPA/USEPA samples. These differences can be attributed to the incompatibility of the IEPA/USEPA and IDPH data sets, as discussed in Subsection 3.1.2.

Figure 3-9 shows two local hot spots for cis-1,2-DCE that are bounded by Alton Avenue, 11th Street, Pershing Road, and Horton Street. There is no clear overall trend for trans-1,2-DCE, however there are several local areas of low-level concentration in the area bounded by Harrison Avenue, Horton Street, Brooke Road, and Lapey Street (Figure 3-11). It should be noted that the highest IDPH sample concentration for trans-1,2-DCE is less than 12 ppb, which is significantly lower than the proposed MCL of 100 ppb for this contaminant. The plume for 1,2-DCA extends from about Wills Avenue and Horton Street westward to roughly Reed Avenue and 8th Street (Figure 3-13). Figure 3-17 shows a small plume for 1,1-DCE that extends from Horton Street and Wills Avenue to Alton Avenue and 11th Street; local hot spots occur within this plume. The PCE plume extends from the east-central part of the study area to about Alton Avenue and Lapey Street

(Figure 3-19). Local hot spots occur within the plume as well as adjacent to it. In addition to the main PCE plume, there is a small linear feature in the vicinity of Sawyer Road and 8th Street. A similar linear feature is also apparent for the IEPA/USEPA samples (Figure 3-18), as noted in Subsection 3.2.2.1. None of the IDPH samples indicated vinyl chloride levels above the detection limit (Table 3-12), therefore no IDPH map of vinyl chloride distribution was prepared.

3.3 METALS CONTAMINATION

Maps illustrating the distribution of groundwater contamination by the 4 metals analyzed for in the Operable Unit are included as Figures 3-21 through 3-24 in the map packet. Metals analyzed for included arsenic, cadmium, chromium and lead. Detection limits for the analytical procedures used in the Operable Unit investigation are listed in Table 3-9. Only IEPA sample points are depicted on these maps because neither USEPA or IDPH have sampled the area for metals contamination. The analytical results for the metals analyses performed for this investigation are included as Table 3-13.

The maps for arsenic (Figure 3-21) and chromium (Figure 3-23) show only isolated points where the contaminant was detected at levels in excess of the respective detection limits. Arsenic was detected at 5 locations in the study area, which are circled on the figure. Arsenic was detected at a maximum level of 18.5 ppb, which is well below the 50 ppb MCL for arsenic. Chromium was detected at 3 locations in the study area, also circled, at a maximum level of 26.2 ppb, which is well below the 50 ppb MCL for chromium.

The maps for cadmium (Figure 3-22) and lead (Figure 3-24) illustrate that portions of the study area are contaminated at very low levels with these contaminants. Cadmium was not detected at levels greater than 1 ppb at any location in the study area. The MCL for cadmium is 10 ppb. Lead was detected in excess of its 50 ppb MCL in two locations, which are shown on Figure 3-24.

Table 3-13
IEPA Metals Data
(All concentrations in µg/l)

Address	Street No.	Sample No.	Sampling Agency	DATE	Arsenic	Cadmium	Chromium	Lead
4th	2819	507	IEPA	6/11/90	ND	0.1B	ND	3.9
4th	2828	509	IEPA	6/11/90	ND	ND	ND	1.4B
4th	2901	518	IEPA	6/12/90	ND	ND	10.0UJ	ND
4th	3045	570/571	IEPA	6/14/90	2.0UJ	0.1B	ND	1.0B
5th	2624	577	IEPA	6/15/90	ND	0.2BJ	ND	ND
7th	3115	582	IEPA	6/15/90	ND	ND	ND	ND
7th	3233	553	IEPA	6/13/90	ND	0.4BJ	10.0UJ	38.9
7th	3309	564	IEPA	6/14/90	2.0UJ	ND	ND	ND
8th	2647	630	IEPA	6/18/90	2.0UJ	0.1UJ	10.0UJ	ND
8th	2810	558	IEPA	6/14/90	2.0UJ	ND	ND	ND
8th	2914	573	IEPA	6/14/90	ND	0.4BJ	ND	1.4B
8th	3022	616	IEPA	6/17/90	ND	0.8J	10.0UJ	ND
8th	3109	620	IEPA	6/18/90	ND	0.1BJ	10.0UJ	ND
8th	3138	618	IEPA	6/17/90	ND	0.2BJ	10.0UJ	ND
8th	3201	546	IEPA	6/13/90	2.0UJ	ND	ND	ND
8th	3237	540	IEPA	6/13/90	18.5J	0.1B	ND	9.9J
8th	3301	539	IEPA	6/13/90	2.0UJ	0.2B	ND	1.8BJ
8th	3337	541	IEPA	6/13/90	2.0UJ	ND	ND	ND
9th	2910	596	IEPA	6/14/90	ND	0.2BJ	ND	ND
9th	3101	612	IEPA	6/18/90	ND	0.1BJ	10.0UJ	ND
9th	3210	587	IEPA	6/15/90	ND	0.1BJ	ND	ND
9th	3245	565	IEPA	6/14/90	2.0UJ	ND	ND	ND
10th	3110	556/557	IEPA	6/13/90	2.0UJ	ND	ND	ND
11th	2613	627	IEPA	6/18/90	2.0UJ	0.3BJ	10.0UJ	6.9
11th	2955	504	IEPA	6/11/90	ND	0.1B	ND	3.5
11th	3015	514	IEPA	6/12/90	ND	0.4B	10.0UJ	1.7B
11th	3119	517	IEPA	6/12/90	2.0B	0.2B	10.0UJ	3.5
11th	3237	580	IEPA	6/15/90	ND	0.1BJ	ND	ND
11th	3329	579	IEPA	6/15/90	ND	0.1BJ	ND	ND
16th	3102	552	IEPA	6/13/90	2.0UJ	ND	ND	ND
16th	3122	401	IEPA	6/13/90	2.0UJ	ND	ND	ND
17th	2602	544	IEPA	6/13/90	2.0UJ	ND	ND	ND
17th	3120	551	IEPA	6/13/90	2.0UJ	ND	ND	2.2J
18th	3110	561	IEPA	6/13/90	2.0UJ	ND	ND	ND
20th	2703	621	IEPA	6/18/90	ND	0.8J	10.0UJ	2.1
20th	3109	542	IEPA	6/18/90	2.0UJ	ND	ND	ND
Barnum	505	650	IEPA	6/20/90	ND	0.2BJ	ND	2.7
Barry	426	632	IEPA	6/18/90	2.0UJ	0.1BJ	10.0UJ	ND
Bildahl	2944	641	IEPA	6/19/90	ND	ND	10.0UJ	1.0UJ
Bildahl	3017	648	IEPA	6/19/90	ND	ND	ND	ND
Bildahl	3038	592	IEPA	6/15/90	ND	0.4BJ	ND	1.9B
Bildahl	3122	609/610	IEPA	6/16/90	ND	0.3BJ	10.0UJ	7.2J
Bildahl	3141	594	IEPA	6/15/90	ND	0.1BJ	ND	ND
Bildahl	3206	611	IEPA	6/16/90	ND	ND	10.0UJ	1.3B
Bildahl	3302	598	IEPA	6/15/90	ND	ND	ND	3.8
Bildahl	3338	599	IEPA	6/15/90	ND	0.1BJ	ND	ND
Brooke	110	617	IEPA	6/18/90	ND	0.3B	10.0UJ	2.7
Brooke	202	529	IEPA	6/12/90	2.0UJ	R	ND	ND
Brooke	326	519	IEPA	6/12/90	ND	0.2BJ	10.0UJ	1.8B
Brooke	409	526	IEPA	6/12/90	ND	ND	ND	ND
Brooke	823	527/528	IEPA	6/12/90	2.0BJ	ND/R	ND	ND
Brooke	1101	639	IEPA	6/19/90	ND	ND	10.0UJ	1.0UJ
Brooke	1202	581	IEPA	6/15/90	ND	0.8J	ND	1.8B
Brooke	1317	584	IEPA	6/15/90	ND	0.2BJ	ND	ND
Collins	2801	543	IEPA	6/13/90	2.0UJ	0.3B	ND	12.5J

• ND = Not Detected, UJ= Not Detected, Estimated Value, B = Blank Contamination, R = Rejected

Table 3-13 cont.
IEPA Metals Data
 (All concentrations in µg/l)

Address	Street No.	Sample No.	Sampling Agency	DATE	Arsenic	Cadmium	Chromium	Lead
Collins	3029	575	IEPA	6/14/90	ND	ND	ND	1.0B
Collins	3109	605	IEPA	6/16/90	ND	0.1B	10.0UJ	1.1B
Collins	3126	608	IEPA	6/16/90	ND	0.2BJ	10.0UJ	ND
Collins	3245	560	IEPA	6/14/90	2.0UJ	ND	ND	1.3BJ
Collins	3310	550	IEPA	6/13/90	2.0UJ	ND	ND	ND
Energy	123	576	IEPA	6/14/90	ND	0.2BJ	26.2	3.0
Grant	3045	606	IEPA	6/16/90	ND	0.1BJ	10.0UJ	ND
Grant	3107	615	IEPA	6/18/90	ND	0.1BJ	10.0UJ	ND
Hamilton	1630	624	IEPA	6/18/90	ND	0.1BJ	10.0UJ	1.3B
Hamilton	1735	502	IEPA	6/11/90	ND	ND	ND	18.8
Harrison	707	646/647	IEPA	6/19/90	ND	ND	ND	ND
Harrison	1713	600	IEPA	6/15/90	ND	0.3BJ	ND	7.7
Harrison	1817	626	IEPA	6/18/90	ND	0.6J	10.0UJ	86.3
Harrison	2315	547/548	IEPA	6/13/90	2.3B	0.2BJ	10.0UJ	4.9J
Horton	3129	588/589	IEPA	6/15/90	ND	0.1BJ	ND	1.5B
Johnson	1737	503/505	IEPA	6/11/90	ND	ND	ND	ND
Kenyon	410	649	IEPA	6/19/90	ND	0.1BJ	ND	ND
Kenyon	621	640	IEPA	6/19/90	ND	0.1BJ	10.0UJ	1.0BJ
Kishwaukee	3037	635	IEPA	6/19/90	2.0UJ	0.5J	10.0UJ	ND
Kishwaukee	3202	590	IEPA	6/15/90	ND	0.3BJ	ND	1.5B
Kishwaukee	3239	566	IEPA	6/14/90	2.0UJ	ND	ND	1.6BJ
Kishwaukee	3302	567	IEPA	6/14/90	2.0UJ	ND	10.5	1.1BJ
Kishwaukee	3333	631	IEPA	6/18/90	2.0UJ	0.2BJ	10.0UJ	ND
Lapey	3013	642/643	IEPA	6/19/90	ND	ND	ND	1.0UJ
Lapey	3101	604	IEPA	6/16/90	ND	ND	ND	ND
Lapey	3138	603	IEPA	6/16/90	ND	0.2BJ	ND	ND
Lapey	3213	597	IEPA	6/15/90	ND	ND	ND	1.2B
Lapey	3230	569	IEPA	6/14/90	2.0UJ	ND	ND	ND
Lapey	3329	572	IEPA	6/14/90	ND	0.1BJ	ND	15.0
Lindale	2406	538	IEPA	6/13/90	2.0UJ	ND	ND	3.0J
Lindale	2620	521	IEPA	6/12/90	ND	ND	10.0UJ	1.8B
Lindberg	2412	522	IEPA	6/12/90	5.1	0.6J	10.0UJ	ND
Lindberg	2619	559	IEPA	6/14/90	2.0UJ	ND	ND	ND
Lyran	1617	510	IEPA	6/11/90	ND	ND	ND	1.6B
Lyran	1701	512	IEPA	6/12/90	2.0	ND	10.0	1.0
Marshall	3106	563	IEPA	6/14/90	2.0UJ	ND	10.0	1.1BJ
Marshall	3137	583	IEPA	6/15/90	ND	0.1BJ	ND	1.6B
Martin	430	554	IEPA	6/13/90	2.1BJ	ND	ND	3.1J
Mattis	827	524	IEPA	6/12/90	ND	ND	ND	ND
New Milford	608	638	IEPA	6/18/90	ND	ND	10.6	1.0UJ
Olsen	2820	520	IEPA	6/12/90	11.6	ND	10.0UJ	ND
Pershing	1637	586	IEPA	6/15/90	ND	0.5BJ	ND	ND
Pershing	1726	585	IEPA	6/15/90	ND	0.3BJ	ND	4.0
Ranger	801	506	IEPA	6/12/90	ND	ND	ND	ND
River Blvd.	3007	516	IEPA	6/12/90	ND	ND	10.0UJ	1.1B
River Blvd.	3110	636	IEPA	6/19/90	ND	0.1BJ	10.0UJ	1.0UJ
River Blvd.	3117	613/614	IEPA	6/17/90	ND	ND	10.0UJ	ND
Rock River	508	530	IEPA	6/12/90	2.0UJ	ND	ND	ND
Roosevelt	841	628	IEPA	6/18/90	2.0UJ	0.7J	10.0UJ	ND
Sandy Hlw	728	602	IEPA	6/16/90	ND	0.2BJ	ND	ND
Sandy Hlw	810	625	IEPA	6/18/90	ND	0.1UJ	10.0UJ	ND
Sandy Hlw	1202	622	IEPA	6/18/90	ND	0.5BJ	10.0UJ	2.2
Sandy Hlw	1306	549	IEPA	6/13/90	2.6BJ	0.2B	ND	56.2J
Sandy Hlw	1812	537	IEPA	6/13/90	2.0UJ	ND	ND	1.0BJ

• ND = Not Detected, UJ= Not Detected, Estimated Value, B = Blank Contamination, R = Rejected

Table 3-13 cont.
IEPA Metals Data

(All concentrations in µg/l)

Address	Street No.	Sample No.	Sampling Agency	DATE	Arsenic	Cadmium	Chromium	Lead
Saner	2905	525	IEPA	6/12/90	ND	ND	ND	ND
Saner	3014	634	IEPA	6/18/90	2.0UJ	0.1UJ	10.0UJ	ND
Saner	3110	578	IEPA	6/15/90	ND	0.4BJ	ND	ND
Sawyer	319	536	IEPA	6/13/90	2.0UJ	ND	ND	3.1J
Sewell	2646	644	IEPA	6/19/90	ND	ND	ND	ND
Sewell	3135.5	593	IEPA	6/15/90	ND	ND	ND	ND
South	619	515	IEPA	6/12/90	ND	0.1B	10.0UJ	1.4B
Taft	804	629	IEPA	6/18/90	2.0UJ	0.1BJ	10.0UJ	1.8B

• ND = Not Detected, UJ= Not Detected, Estimated Value, B = Blank Contamination, R = Rejected

None of the plume maps for the metals analyzed for in the Operable Unit show a systematic distribution of contamination comparable to that observed for VOCs. Instead, the metals data collected in this study indicate localized contamination associated with several unrelated point sources.

3.4 COMPARISON TO ARARS

Applicable or Relevant and Appropriate Requirements (ARARs) are regulations, standards, or criteria that may apply to a site in a regulatory or enforcement action. CERCLA specifically limits the scope of state ARARs to regulations or requirements that have been promulgated and that are more stringent than corresponding federal standards. Section 121 of CERCLA, as reauthorized, requires that ARARs be identified on a site-by-site basis for NPL sites. USEPA's guidance document on ARARs, CERCLA Compliance with Other Laws Manual (USEPA, 1989), specifies that the state has the responsibility of identifying ARARs for a particular site. The State of Illinois has not yet formally identified ARARs for the Southeast Rockford study area, but it is likely that the state will name Safe Drinking Water Act Maximum Contaminant Levels (MCLs), Illinois' Proposed Groundwater Quality Criteria (35 IL Admin. Code 620), and other state water quality regulations as ARARs for the study area. These potential ARARs are presented in Table 3-14. This list is not intended to be exhaustive, but has been included to illustrate the numerical water quality criteria which may apply to the study area.

If a regulation could apply to a site but is not legally enforceable, it is termed a To Be Considered (TBC). Safe Drinking Water Act Secondary MCLs, which are based on aesthetic qualities of water and are not enforceable, are an example of a TBC. Table 3-14 also presents existing or proposed Maximum Contaminant Level Goals (MCLGs) for compounds that have existing or proposed MCLs. An MCLG is a non-enforceable health goal for substances that may have an adverse effect on the health of persons. The numerical value of an MCLG is set at a level at which no known or anticipated adverse effects on health occur.

TABLE 3-14
Potential Applicable or Relevant and Appropriate Requirements
(ARARs)

	ILLINOIS ADMINISTRATIVE CODE 35			SAFE DRINKING WATER ACT			Proposed Illinois Groundwater Quality Criteria	
	SUBTITLE C		SUBTITLE F	SECTION 14.2				
	General Use Water Quality Standards Section 302.208 Concentration (mg/l)†	Public and Food Processing Water Supply Standards Section 302.304 Concentration (mg/l)†	Finished Water Quality Standards Section 604.202 Concentration (mg/l)†	Primary Drinking Water Standards 40 CFR 141 Concentration (mg/l)†	Proposed Primary and Secondary Drinking Water Standards (mg/l)†	Existing or Proposed Maximum Contaminant Level Goal (MCLG) (mg/l)†	General Resource Groundwater Section 620.302 (mg/l)†	Potable Resource Groundwater Section 620.301 (mg/l)†
Inorganics								
Arsenic (Total)	1.0	0.05	0.05	0.05		0*	0.2	0.05
Cadmium (Total)	0.05	0.01	0.01	0.01	0.005	0.005*	0.05	0.005
Chromium (Total)		0.05	0.05	0.05	0.10	0.10*	1.0	0.1
Lead (Total)	0.1	0.05	0.05	0.05	0.005	0	0.1	0.05
VOCs								
Trichloroethene				0.005		0	0.025	0.005
1,1,1-Trichloroethane				0.20		0.20	1.0	0.2
Cis-1,2-Dichloroethene					0.07	0.07*	0.2	0.07
Trans-1,2-Dichloroethene					0.1	0.1*	0.5	0.1
1,2-Dichloroethane				0.005		0	0.025	0.005
1,1-Dichloroethene				0.007		0.007	0.035	0.007
Tetrachloroethene					0.005	0*	0.025	0.005
Vinyl Chloride				0.002		0	0.01	0.002

† To convert mg/l (ppm) to ug/l (ppb), multiply ppm by 1,000

* Signifies a proposed MCLG

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The State of Illinois is currently in the process of promulgating water quality standards that will apply to groundwater under 35 IL Admin. Code 620. These proposed regulations include two classes of groundwater: General Resource Groundwater and Potable Resource Groundwater. Under the proposed groundwater classification system, the groundwater withdrawn for potable use in the study area would be classified as Potable Resource Groundwater, to which Potable Resource Groundwater Quality Criteria (far right column in Table 3-14) would apply. The inclusion of the State of Illinois' Groundwater Quality standards as ARARs or TBCs will depend on the timing of the promulgation of the standards.

Safe Drinking Water Act MCLs have been established for 5 of the 9 VOCs of concern in this study, and have been proposed for 3 others. Illinois Potable Resource Groundwater Quality standards have been proposed for 8 of the VOCs of concern. Numerical values for the proposed Potable Resource standards are equal in all cases to the existing or proposed MCLs for the VOCs of concern. Review of the analytical results indicate that MCLs have been exceeded in portions of the study area for TCE, 1,1,1-TCA, 1,2-DCA, 1,1-DCE, and vinyl chloride. Proposed MCLs have been exceeded for cis-1,2-DCE and PCE. No standard was exceeded for trans-1,2-DCE. No Safe Drinking Water Act MCL, proposed MCL, or Potable Resource Standard has been established for 1,1-DCA.

The numerical values of the proposed Potable Resource Groundwater Quality criteria differ from the Safe Drinking Water Act MCLs for arsenic, cadmium, and chromium. These contaminants were detected at low levels in this investigation, and did not exceed either standard at any point in the study area. The MCL and proposed Potable Resource Standard for lead are both set at 50 ppb. This limit was exceeded at two locations in the study area.

The areas where an MCL for any contaminant has been exceeded are illustrated in Figure 3-25 (for IEPA/USEPA data) and Figure 3-26 (for IDPH data), both of which are included in the map packet. These figures show a broad, west-northwest trending band with small, outlying pockets of contamination at various locations across the study area.

3.5 3-D CONTOUR PLOTS OF IEPA/USEPA DATA

Appendix C contains 3-D contour plots of IEPA/USEPA data for the nine VOCs of concern. These plots provide succinct visual summaries of VOC concentrations across the study area and they augment the information presented on the contour maps in the map packet that accompanies this report. The 3-D plots should be used as qualitative guides to contamination in the study area, whereas the plume contour maps in the map packet provide quantitative information about groundwater contamination. It should be noted that the vertical scale is variable for each 3-D plot. Hence, direct comparisons of concentration levels for the different 3-D plots are not possible. The green dots represent sample locations at which contamination was detected.

4.0 RISK ASSESSMENT

4.1 PURPOSE AND SCOPE OF RISK ASSESSMENT

The purpose of this assessment is to assist the Illinois Environmental Protection Agency (IEPA) in identifying residences within the study area which are affected by the groundwater contamination, which have not or will not be provided with alternative water as part of the USEPA's final removal action, and for which the provision of an alternative water supply through a state-led action would be prudent. To determine whether an alternative water supply is needed, IEPA will rely primarily on the final or proposed Maximum Contaminant Levels (FMCLs and PMCLs) developed under the authority of the federal Safe Drinking Water Act. For the VOCs analyzed in this investigation, the FMCLs or PMCLs are numerically equivalent to the proposed Illinois Groundwater Quality Control (35 IL Admin. Code 620) for Class I Potable Resource Groundwater (Section 620.301). The proposed Illinois Groundwater Quality criteria are more restrictive than the MCLs for arsenic and cadmium, equivalent to the MCL for lead, and less restrictive than the MCL for chromium (Table 3-14). This risk assessment compares contaminant levels detected in residential wells to available FMCLs and to PMCLs when FMCLs are not available.

In this Risk Assessment, hazard indices are used to evaluate the carcinogenic and non-carcinogenic risks associated with mixtures of contaminants at wells at which detected levels of contamination do not exceed an MCL. The hazard indices will be used as a criterion for providing alternative water at these wells.

This assessment groups the 117 sampled wells according to the following three categories and provides summary tables with information on each category:

- o wells where contamination was not detected above detection limits;
- o wells where contamination was detected at levels that exceed one or more MCLs; and
- o wells where contamination was detected above detection limits but below MCLs.

Hazard indices were calculated for the last category of wells where contamination was detected above detection limits but below the MCL. Hazard indices represent a summation of the ratios of the concentrations of chemicals detected in a particular well to the MCL for those chemicals. Separate hazard indices were calculated for both non-carcinogens and carcinogens. As instructed by IEPA, (1) all chemicals except for 1,2-dichloroethane, a stomach carcinogen, were grouped as either liver toxins or liver carcinogens; and (2) metals were excluded from the calculation of hazard indices so that the hazard indices represent the combined effects of the chlorinated solvents only. Results are presented as groups of wells where the chemical mixtures detected yield hazard indices of (1) greater than 1; (2) 0.75 to 1; (3) 0.5 to 0.74; (4) 0.25 to 0.49; and (5) 0 to 0.24.

The methodology used to categorize the 117 wells sampled and to calculate the hazard indices for wells where contamination was detected below MCLs is described in Section 4.2. The results and conclusions of this assessment are presented in Subsections 4.3 and 4.4.

4.2 METHODOLOGY

IEPA has defined two criteria with which to evaluate wells in the study area and to determine which of these wells should be provided with an alternative water supply. These criteria include (1) MCLs and (2) the target organ hazard indices. Hazard indices represent a sum of the ratios

of contaminant concentrations to their respective MCL for a mixture of contaminants believed to have the same target organ or mechanism of action. Separate hazard indices were calculated for both non-carcinogenic and carcinogenic substances. This methodology generally corresponds to the Guidelines for the Health Risk Assessment of Chemical Mixtures (FR Vol. 51, 34014-34025, 1986). The methodology used to prepare the information needed by IEPA involved data evaluation, comparison of data to MCLs, and the calculation of hazard indices for wells where contaminants were detected at concentrations below MCLs. Each of these steps is summarized below.

4.2.1 DATA EVALUATION

Data for 9 volatile organic compounds and four metals were received from the USEPA contract laboratories, as discussed in Subsection 2.3.2. Due to the low detection limits, a number of data points were qualified or flagged. Data qualifiers for VOCs are discussed in Subsection 3.1.

Wells at which all contaminant concentrations were qualified with either a "U" or a "J" were considered wells where contamination was not detected above detection limits. The detection limit for vinyl chloride was 0.25 ppb and the detection limit for all remaining VOCs was 0.50 ppb. Table 4-1 presents a list of these wells and Figure 4-1 identifies these wells on a study area map. Wells at which contaminant concentrations were not qualified or were qualified with a "B," were evaluated as to whether any MCLs were exceeded.

4.2.2 COMPARISON OF DATA TO MAXIMUM CONTAMINANT LEVELS

Once wells at which contamination was not detected were segregated from the data set, data for the remaining wells were compared to MCLs, which are listed in Table 3-14. MCLs are equivalent to the Illinois Potable Resource Criteria (35 Ill. Adm. Section 620.301).

Table 4-1

**S.E. ROCKFORD OPERABLE UNIT - WELLS WHERE CONTAMINATION
NOT DETECTED ABOVE DETECTION LIMITS***

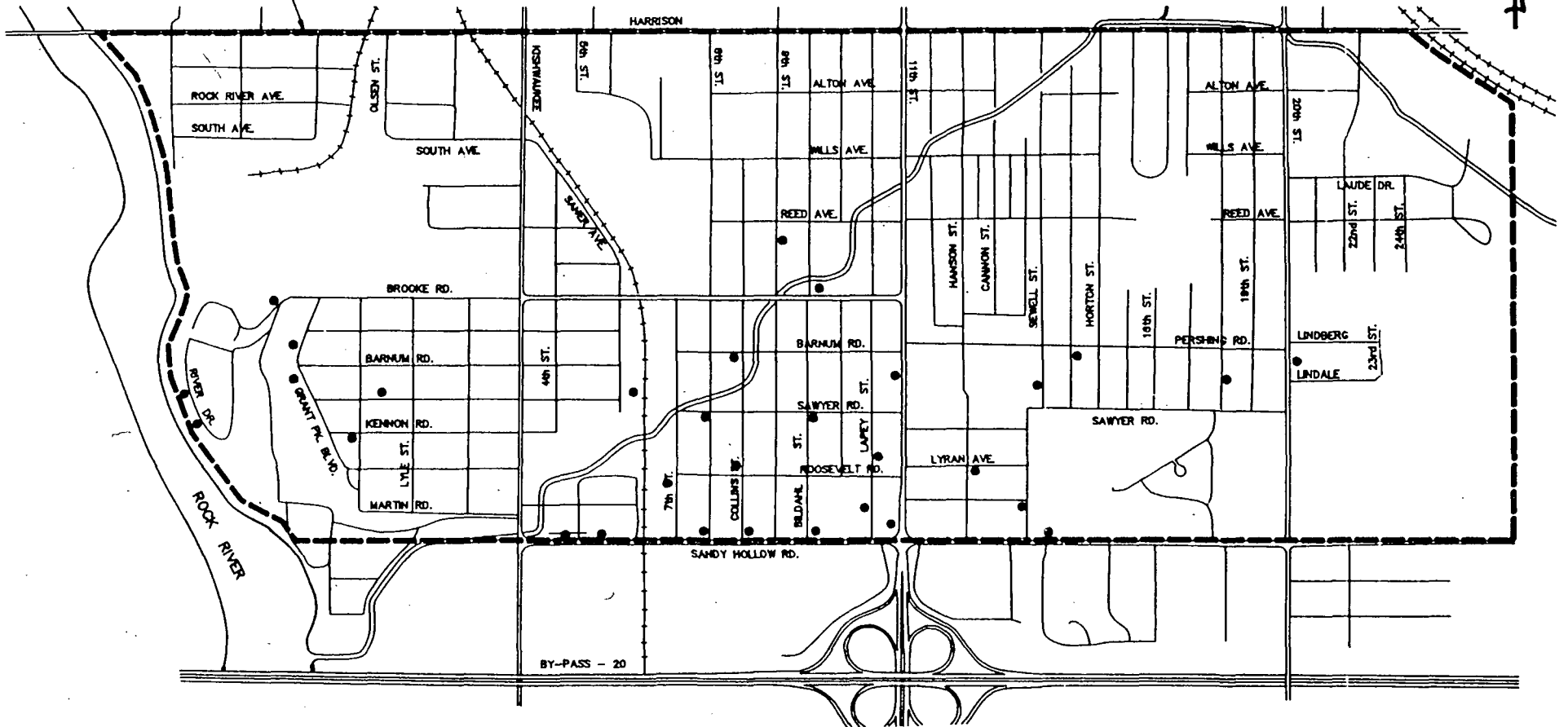
ADDRESS	ADDRESS
1737 Johnson	3329 11th
1737 Johnson (dup)	410 Kennon - msd
1701 Lyran	3135.5 Sewell
3119 11th	2910 9th - msd
202 Brooke	3302 Bildahl
319 Sawyer	3338 Bildahl
1812 Sandy HIW	728 Sandy HIW
2406 Lindale	3109 Collins
3337 8th	3045 Grant Park
3201 8th	3117 River Blvd
3245 Collins	3117 River Blvd (dup)
3110 18th	3107 Grant Park
3106 Marshall	1202 Sandy HIW
3309 7th	810 Sandy HIW
3230 Lapey	3110 River
3329 Lapey	2944 Bildahl
3110 Saner	

* Detection limit of 0.5 ppb used for the following chemicals: 1,1 - DCE; Trans 1,2 - DCE; 1,1 - DCA; CIS - 1,2 - DCE; 1,1,1 - TCA;
1,2 - DCA; TCE, PCE

Detection limit of 0.25 ppb used for Vinyl Chloride

**STUDY AREA
BOUNDARY**

N



CDM

environmental engineers, scientists,
planners, & management consultants

SCALE:



**WELLS WHERE CONTAMINATION NOT
DETECTED ABOVE DETECTION LIMITS**

FIGURE NO.

4-1

Contaminant concentrations for each well at which one or more MCLs was exceeded are presented in Table 4-2 and the wells are identified on a study area map in Figure 4-2.

4.2.3 CALCULATION OF HAZARD INDICES

Once wells at which contamination was not detected above detection limits and wells at which one or more MCLs were exceeded were identified, hazard indices were calculated for the contaminants or contaminant mixtures detected in the remaining wells where contamination was detected at concentrations below MCLs. Contaminant concentrations are presented for each of these wells in Table 4-3.

Hazard indices were calculated separately for non-carcinogens and carcinogens. TCE, PCE, 1,2-DCE, and vinyl chloride are carcinogens and 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE and 1,1,1-TCA are non-carcinogens (USEPA, 1990). Though analyzed, sufficient evidence does not exist to classify 1,1-DCA as either carcinogenic or non-carcinogenic. Neither an MCL nor an Illinois Potable Resource Criteria exists for 1,1-DCA. Therefore, this contaminant was not included in the calculation of the hazard indices, as instructed by IEPA. None of the VOC contaminants considered were classified as both carcinogenic and non-carcinogenic. As directed by IEPA, all contaminants, except for 1,2-DCE, a stomach carcinogen, were considered to be either liver toxins or liver carcinogens. Spreadsheets used to calculate the non-carcinogenic and carcinogenic hazard indices are included as Appendix D. Table 4-4 groups wells into incremental hazard index categories. Figures 4-3 and 4-4 included in the map packet delineate these wells on a study area map and list the associated non-carcinogenic and carcinogenic hazard indices.

4.3 RESULTS

Contamination was not detected above detection limits in 31 of the 117 wells sampled. A list of these wells is provided in Table 4-1. Wells for

Table 4-2

S.E. ROCKFORD OPERABLE UNIT - WELLS WHERE ONE OR MORE MAXIMUM CONTAMINANT LEVELS EXCEEDED

ADDRESS	CONTAMINANT (ug/l)	CONCENTRATION (ug/l)	MAXIMUM CONTAMINANT LEVEL (ug/l)
801 Ranger	1,1 - DCE	11	7
	TCE	21	5
2819 4th	1,1 - DCE	8	7
	TCE	17	5
2828 4th	1,1 - DCE	9	7
	TCE	18	5
619 South	TCE	18	5
3007 River	TCE	111	5
2901 4th	1,1 - DCE	25	7
	TCE	29	5
2820 Olsen	TCE	10	5
	PCE	127	5
827 Mattis	1,1 - DCE	20	7
	TCE	32	5
823 Brooke	TCE	15	5
823 Brooke (dup)	TCE	20	5
508 Rock River	Vinyl Chloride	114	2
	1,1 - DCE	13	7
	Cis 1,2 - DCE	1233	70
	1,2 - DCA	13	5
	TCE	171	5
	PCE	13	5
3233 7th	PCE	7	5
2810 8th	TCE	8	5
3045 4th	TCE	36	5
	PCE	10	5
3045 4th (dup)	TCE	36	5
	PCE	10	5

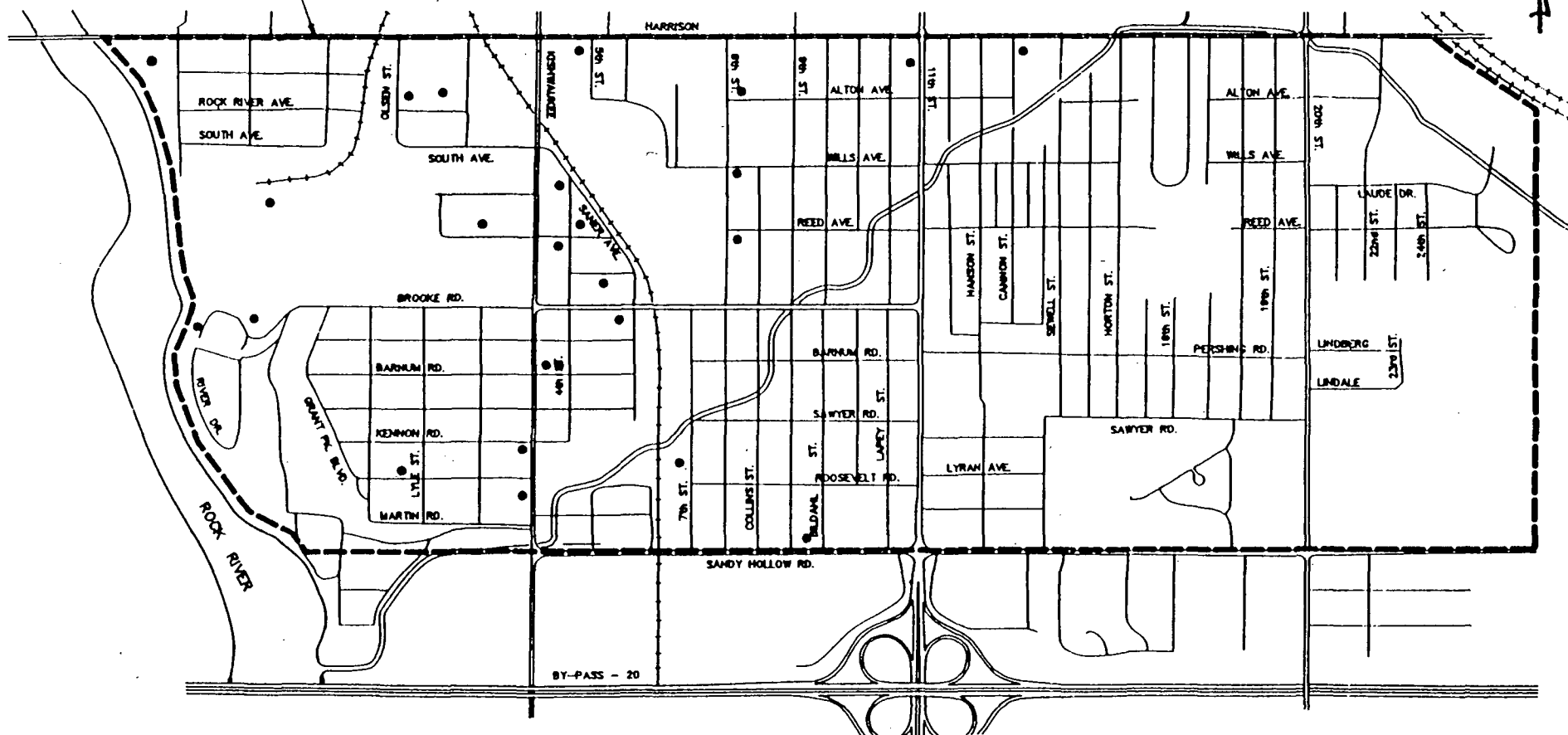
Table 4-2 (CONT.)

S.E. ROCKFORD OPERABLE UNIT - WELLS WHERE ONE OR MORE MAXIMUM CONTAMINANT LEVELS EXCEEDED

ADDRESS	CONTAMINANT (ug/l)	CONCENTRATION (ug/l)	MAXIMUM CONTAMINANT LEVEL (ug/l)
2914 8th	PCE	15	5
123 Energy	TCE	102	5
	PCE	24	5
110 Brooke	TCE	126	5
1817 Harrison	1,1 - DCE	25	7
	1,1,1 - TCA	991	200
	TCE	63	5
	Pb	56	50
2613 11th	1,1 - DCE	7.9	7
	TCE	14	5
2647 8th	Vinyl Chloride	9	2
	1,1 - DCE	110	7
	1,1,1 - TCA	528	200
	1,2 - DCA	6	5
	TCE	10	5
	PCE	10	5
426 Barry	Cis 1,2 - DCE	99	70
	TCE	428	5
3037 Kishwaukee	TCE	13	5
608 New Milford	TCE	14	5
621 Kennon	TCE	7	5
	PCE	545	5
707 Harrison	1,1 - DCE	34	7
	TCE	41	5
	PCE	10	5
707 Harrison (dup)	1,1 - DCE	34	7
	TCE	41	5
	PCE	10	5
1306 Sandy HIW	Pb	56	50

STUDY AREA
BOUNDARY

N



CDM

environmental engineers, scientists,
planners, & management consultants

SCALE:



WELLS WHERE ONE OR MORE
MAXIMUM CONTAMINANT
LEVELS EXCEEDED

FIGURE NO.

4-2

Table 4-3

**S.E. ROCKFORD OPERABLE UNIT - WELLS WHERE CONTAMINATION
DETECTED ABOVE DETECTION LIMITS BUT BELOW
MAXIMUM CONTAMINANT LEVELS**

ADDRESS	CONTAMINANT (ug/l)	CONCENTRATION (ug/l)	MAXIMUM CONTAMINANT LEVEL (ug/l)
1735 Hamilton	TCE	0.8	5
2955 11th	Cis 1,2 - DCE	11.0	70
	TCE	1.0	5
1617 Lyran .	PCE	1.1	5
3015 11th	1,1,1 - TCA	6.3	200
	TCE	3.3	5
326 Brooke-msd	Cis 1,2 - DCE	14.0	70
2620 Lindale	1,1,1 - TCA	1.7	200
	TCE	1.1	5
	PCE	0.9	5
2412 Lindberg	TCE	1.6	5
2905 Saner	1,1,1 - TCA	1.8	200
	TCE	1.7	5
	PCE	1.0	5
409 Brooke	1,1 - DCE	0.6	7
	1,1,1 - TCA	3.8	200
	TCE	2.4	5
	PCE	2.0	5
3301 8th	TCE	0.6	5
	PCE	0.5	5
3237 8th	TCE	1.0	5
	PCE	1.8	5
3109 20th	TCE	1.2	5
2801 Collins	1,1 - DCE	1.4	7
	Cis 1,2 - DCE	2.1	70
	1,1,1 - TCA	8.6	200
	TCE	2.0	5

Table 4-3 (CONT.)

**S.E. ROCKFORD OPERABLE UNIT - WELLS WHERE CONTAMINATION
DETECTED ABOVE DETECTION LIMITS BUT BELOW
MAXIMUM CONTAMINANT LEVELS**

ADDRESS	CONTAMINANT (ug/l)	CONCENTRATION (ug/l)	MAXIMUM CONTAMINANT LEVEL (ug/l)
2602 17th	1,1 - DCE	1.0	7
	CIS 1,2 - DCE	2.5	70
	1,1,1 - TCA	29.0	200
	TCE	1.1	5
2315 Harrison	1,1 - DCE	0.8	7
	1,1,1 - TCA	10	200
2315 Harrison (dup)	1,1 - DCE	0.9	7
	1,1,1 - TCA	11	200
3310 Collins	1,1,1 - TCA	2.5	200
	TCE	0.9	5
3120 17th	1,1,1 - TCA	2.8	200
	TCE	2.0	5
3102 16th	1,1 - DCE	1.1	7
	CIS 1,2 - DCE	1.5	70
	1,1,1 - TCA	7.0	200
	TCE	3.1	5
	PCE	0.7	5
430 Martin	CIS 1,2 - DCE	2.0	70
	TCE	4.8	5
	PCE	4.7	5
3110 10th	TCE	2.9	5
3110 10th (dup)	TCE	2.4	5
2619 Lindberg	1,1 - DCE	0.8	7
	CIS 1,2 - DCE	1.1	70
	TCE	3.2	5
	PCE	0.6	5
3245 9th	1,1,1 - TCA	1.9	200

Table 4-3 (CONT.)

**S.E. ROCKFORD OPERABLE UNIT - WELLS WHERE CONTAMINATION
DETECTED ABOVE DETECTION LIMITS BUT BELOW
MAXIMUM CONTAMINANT LEVELS**

ADDRESS	CONTAMINANT (ug/l)	CONCENTRATION (ug/l)	MAXIMUM CONTAMINANT LEVEL (ug/l)
3239 Kishwaukee	PCE	1.8	5
3302 Kishwaukee	1,1,1 - TCA	2.5	200
	PCE	1.2	5
3029 Collins-msg	TCE	0.6	5
2624 5th	CIS 1,2 - DCE	14.0	70
	TCE	2.8	5
	PCE	2.1	5
3237 11th	1,1,1 - TCA	2.1	200
	TCE	0.9	5
	PCE	0.7	5
1202 Brooke	1,1,1 - TCA	4.5	200
	TCE	1.6	5
3115 7th	1,1,1 - TCA	3.0	200
	TCE	1.0	5
	PCE	1.3	5
3137 Marshall	1,1,1 - TCA	3.4	200
	TCE	1.8	5
1317 Brooke	CIS 1,2 - DCE	0.5	70
	1,1,1 - TCA	4.7	200
	TCE	2.3	5
1726 Pershing	1,1,1 - TCA	4.1	200
	TCE	2.1	5
1637 Pershing	1,1,1 - TCA	3.1	200
	TCE	1.7	5
3210 9th	1,1,1 - TCA	3.2	200
	TCE	2.0	5
	PCE	2.4	5
3129 Horton	TCE	0.8	5
3202 Kishwaukee	1,1,1 - TCA	3.4	200

Table 4-3 (CONT.)

**S.E. ROCKFORD OPERABLE UNIT - WELLS WHERE CONTAMINATION
DETECTED ABOVE DETECTION LIMITS BUT BELOW
MAXIMUM CONTAMINANT LEVELS**

ADDRESS	CONTAMINANT (ug/l)	CONCENTRATION (ug/l)	MAXIMUM CONTAMINANT LEVEL (ug/l)
3038 Bildahl	1,1,1 - TCA	2.9	200
	TCE	1.6	5
3141 Bildahl	1,1,1 - TCA	3.8	200
	TCE	2.2	5
	PCE	2.3	5
3213 Lapey	TCE	1.4	5
1713 Harrison	1,1 - DCE	1.5	7
	CIS 1,2 - DCE	5.8	70
	1,1,1 - TCA	33	200
	TCE	3.3	5
	PCE	0.7	5
3138 Lapey	1,1,1 - TCA	4.0	200
	TCE	2.7	5
3103 Lapey	1,1,1 - TCA	2.8	200
	TCE	1.8	5
3126 Collins	1,1,1 - TCA	2.9	200
	TCE	2.0	5
3122 Bildahl	1,1,1 - TCA	3.9	200
	TCE	2.7	5
3122 Bildahl (dup)	1,1,1 - TCA	4.1	200
	TCE	2.6	5
3206 Bildahl - msd	1,1,1 - TCA	2.7	200
	TCE	1.9	5
3101 9th	1,1,1 - TCA	3.8	200
	TCE	2.1	5
3072 8th	1,1,1 - TCA	21.0	200

Table 4-3 (CONT.)

**S.E. ROCKFORD OPERABLE UNIT - WELLS WHERE CONTAMINATION
DETECTED ABOVE DETECTION LIMITS BUT BELOW
MAXIMUM CONTAMINANT LEVELS**

ADDRESS	CONTAMINANT (ug/l)	CONCENTRATION (ug/l)	MAXIMUM CONTAMINANT LEVEL (ug/l)
3138 8th	1,1,1 TCA	3.9	200
	TCE	2.5	5
	PCE	1.0	5
3109 8th	1,1,1 TCA	3.3	200
	TCE	1.8	5
1630 Hamilton	1,1,1 TCA	3.0	200
	TCE	1.9	5
841 Roosevelt	1,1,1 TCA	2.4	200
	TCE	0.9	5
	PCE	2.4	5
804 Taft	1,1,1 TCA	1.4	200
	PCE	1.1	5
3333 Kishwaukee	1,1 -DCE	0.7	7
	TCE	1.2	5
3014 Saner	1,1,1 TCA	2.0	200
	TCE	0.7	5
	PCE	2.8	5
1101 Brooke	1,1,1 TCA	2.2	200
	TCE	0.7	5
3013 Lapey	1,1,1 TCA	4.3	200
	TCE	2.2	5
	PCE	0.6	5
3013 Lapey (dup)	1,1,1 TCA	4.2	200
	TCE	2.2	5
2646 Sewell	1,1 - DCE	1.2	7
	1,1,1 TCA	39.0	200
	TCE	0.7	5

Table 4-3 (CONT.)

**S.E. ROCKFORD OPERABLE UNIT - WELLS WHERE CONTAMINATION
DETECTED ABOVE DETECTION LIMITS BUT BELOW
MAXIMUM CONTAMINANT LEVELS**

ADDRESS	CONTAMINANT (ug/l)	CONCENTRATION (ug/l)	MAXIMUM CONTAMINANT LEVEL (ug/l)
3017 Bildahl	CIS 1,2 - DCE	0.1	7
	1,2 - DCA	1.6	5
505 Barnum	TCE	0.5	5
3122 16th	1,1,1 - TCA	2.9	200
	TCE	1.3	5
2703 20th	1,1 - DCA	1.1*	NA

*GROUNDWATER QUALITY CRITERIA NOT AVAILABLE FOR THIS CHEMICAL

Table 4-4

**S.E. ROCKFORD OPERABLE UNIT - INCREMENTAL TARGET ORGAN
HAZARD INDICES FOR WELLS WHERE CONTAMINATION DETECTED
BELOW MAXIMUM CONTAMINANT LEVELS**

ADDRESS	HAZARD INDEX	CARCINOGENIC TARGET ORGAN HAZARD INDEX	NON-CARCINOGENIC TARGET ORGAN HAZARD INDEX
>1			
430 Martin		1.9	
0.75-1			
409 Brooke		0.88	
3102 16th		0.76	
2619 Lindberg		0.76	
2624 5th		0.98	
3141 Bildahl		0.90	
1713 Harrison		0.80	
3210 9th		0.88	
0.5-0.74			
3015 11th		0.66	
2905 Saner		0.54	
3237 8th		0.56	
3110 10th		0.58	
3138 Lapey		0.54	
3122 Bildahl		0.52	
3138 8th		0.70	
841 Roosevelt		0.66	
3014 Saner		0.70	
3013 Lapey		0.56	

Table 4-4 (CONT.)

**S.E. ROCKFORD OPERABLE UNIT - INCREMENTAL TARGET ORGAN
HAZARD INDICES FOR WELLS WHERE CONTAMINATION DETECTED
BELOW MAXIMUM CONTAMINANT LEVELS**

ADDRESS	HAZARD INDEX	CARCINOGENIC TARGET ORGAN HAZARD INDEX	NON-CARCINOGENIC TARGET ORGAN HAZARD INDEX
	0.25-0.49		
2620 Lindale		0.40	
2412 Lindberg		0.32	
2801 Collins		0.40	0.27
2602 17th			0.32
3120 17th		0.40	
3239 Kishwaukee		0.36	
3237 11th		0.32	
1202 Brooke		0.32	
3115 7th		0.46	
3137 Marshall		0.36	
1317 Brooke		0.46	
1726 Pershing		0.42	
1637 Pershing		0.34	
3038 Bildahl		0.32	
3213 Lapey		0.28	
1713 Harrison			0.42
3101 Lapey		0.36	
3126 Collins		0.40	
3206 Bildahl		0.38	
3101 9th		0.42	
3109 8th		0.36	
1630 Hamilton		0.38	
2646 Sewell			0.37
3122 16th		0.26	

Table 4-4 (CONT.)

**S.E. ROCKFORD OPERABLE UNIT - INCREMENTAL TARGET ORGAN
HAZARD INDICES FOR WELLS WHERE CONTAMINATION DETECTED
BELOW MAXIMUM CONTAMINANT LEVELS**

ADDRESS	HAZARD INDEX	CARCINOGENIC TARGET ORGAN HAZARD INDEX	NON-CARCINOGENIC TARGET ORGAN HAZARD INDEX
	0.0-0.24		
1735 Hamilton		0.16	
2955 11th		0.20	
1617 Lyran		0.24	
3015 11th			0.03
326 Brooks			0.19
2620 Lindale			0.01
2905 Saner			0.01
409 Brooke			0.10
3301 8th		0.22	
3109 20th		0.24	
2602 17th		0.22	
2315 Harrison			0.18
3310 Collins		0.18	0.01
3120 17th			0.01
3102 16th			0.21
430 Martin			0.03
2619 Lindberg			0.13
3245 9th			0.01
3302 Kishwaukee		0.24	0.01
3029 Collins		0.12	
2624 5th			0.20
3237 11th			0.01
1202 Brooke			0.02
3115 7th			0.02
3137 Marshall			0.02

Table 4-4 (CONT.)

**S.E. ROCKFORD OPERABLE UNIT - INCREMENTAL TARGET ORGAN
HAZARD INDICES FOR WELLS WHERE CONTAMINATION DETECTED
BELOW MAXIMUM CONTAMINANT LEVELS**

ADDRESS	HAZARD INDEX	CARCINOGENIC TARGET ORGAN HAZARD INDEX	NON-CARCINOGENIC TARGET ORGAN HAZARD INDEX
	0.0-0.24		
1317 Brooke			0.07
1726 Pershing			0.02
1637 Pershing			0.02
3210 9th			0.02
3129 Horton		0.16	
3202 Kishwaukee			0.02
3038 Bildahl			0.01
3141 Bildahl			0.02
3138 Lapey			0.02
3101 Lapey			0.01
3126 Collins			0.01
3122 Bildahl			0.02
3206 Bildahl			0.01
3101 9th			0.02
3022 8th			0.11
3138 8th			0.02
3109 8th			0.02
1630 Hamilton			0.02
841 Roosevelt			0.01
804 Taft		0.22	0.01
3333 Kishwaukee		0.24	0.10
3014 Saner			0.01
1101 Brooke		0.14	0.01
3013 Lapey			0.02
2646 Sewell		0.14	
3017 Bildahl		0.02	0.00
505 Barnum			0.10
3122 16th			0.01

which duplicate samples were obtained were also listed. The distribution of these wells is illustrated in Figure 4-1. These wells are primarily located in the south central portion of the study area.

Contamination was detected above an MCL for one or more contaminants in 25 of the 117 wells sampled. A list of these wells along with the contaminants and associated concentrations detected above MCLs is presented in Table 4-2. The distribution of these wells is illustrated in Figure 4-2. All but one of these wells is located west of 11th Street. The frequency of detection above MCLs is shown below for each contaminant.

<u>CONTAMINANT</u>	<u>NO. OF WELLS DETECTED ABOVE MAXIMUM CONTAMINANT LEVELS</u>
TCE	22
1,1-DCE	11
PCE	9
1,1,1-TCA	2
1,2-DCA	2
cis-1,2-DCE	2
Vinyl Chloride	1
Pb	2

Contamination was detected at levels below MCLs at 60 of the 117 wells sampled. A list of these wells along with the contaminant concentrations detected are presented in Table 4-3. The distribution of these wells and the hazard indices associated with the mixtures of contaminants detected are presented in Figures 4-3 and 4-4.

It should be noted that at one well, located at 2703 20th Street, only 1,1-DCA was detected (Table 4-3). There is no MCL or Illinois Potable Resource Criterion for this compound.

The mixtures detected represent typical transformation pathways for volatile chlorinated aliphatic chemicals (Smith and Dragun, 1984). Trichloroethylene (TCE) was detected at 53 of the 60 wells where

contaminants were detected at concentrations below MCLs. In many cases TCE was detected in combination with either a possible precursor, PCE, or its breakdown products, cis 1,2-DCE or 1,1-DCE. TCE and 1,1,1-TCA, contaminants that are not associated via their transformation pathways, were also frequently detected together.

At fifteen of these wells only one contaminant was detected. In nine of these cases TCE was the sole contaminant detected although PCE, cis-1,2-DCE, and 1,1,1-TCA were also detected as sole contaminants. In many of these wells only one carcinogenic substance and one non-carcinogenic substance comprised the mixture of contaminants detected. At 22 of these wells, the mixture of contaminants consisted of TCE and 1,1,1-TCA only.

Only one well had a carcinogenic hazard index above 1. Seven wells had hazard indices between 0.75 and 1; 10 wells had hazard indices between 0.50 and 0.74; 24 wells had hazard indices between 0.25 and 0.49 and 53 wells had hazard indices between 0.0 and 0.24. There were no non-carcinogenic hazard indices above 0.42. It should be noted that wells at which both non-carcinogenic and carcinogenic contaminants were detected may appear in more than one hazard index category.

Out of 18 wells with hazard indices above 0.5 (all carcinogenic) the most frequently found contaminant mixture was TCE and PCE, found at 13 of these wells. At 8 of these wells 1,1,1-TCA was also detected, although its presence as a non-carcinogen did not contribute to the hazard index.

The relatively low hazard indices calculated for the majority of wells in the study area do not appear to indicate a significant problem with regard to contaminant mixtures detected at concentrations below MCLs. However, wells within the two highest hazard index categories, greater than 1 and 0.75 to 1 may be of concern. It is important to consider the temporal movement of the contaminant plume because the contaminant profiles evaluated in this section will likely be influenced by such movement.

4.4 CONCLUSIONS

4.4.1 COMPARISON OF DATA TO MAXIMUM CONTAMINANT LEVELS

At 25 wells within the study area, contaminant concentrations exceed MCLs. The table below presents the excess lifetime cancer risks (ELCR) associated with lifetime ingestion of drinking water contaminated at concentrations equivalent to an MCL. These risks were calculated using standard exposure assumptions and the Cancer Potency Factors listed in the table.

<u>COMPOUND</u>	<u>MCL (ug/l)</u>	<u>CANCER POTENCY FACTORS</u>	<u>ASSOCIATED EXCESS LIFETIME CANCER RISK</u>
PCE	5	5.1×10^{-2} (USEPA, 1989)	7.2×10^{-6}
TCE	5	1.1×10^{-2} (USEPA, 1989)	1.6×10^{-6}
1,2-DCE	5	9.1×10^{-2} (USEPA, 1990)	1.3×10^{-5}
Vinyl Chloride	2	2.3 (USEPA, 1989)	1.3×10^{-4}

Exposure to contaminant concentrations above the MCL will be associated with cancer risks greater than the ELCRs listed above. Wells with particularly high concentrations of PCE, TCE, and vinyl chloride would be in the 1×10^{-4} to 1×10^{-3} cancer risk range. These levels are significantly higher than generally accepted cancer risk limits. It should be noted that cancer risks attributable to non-potable uses of the water (showering/bathing and other household water use), may be as high as risks attributable to ingestion of this water.

For non-carcinogens, the daily doses received as a result of ingestion of water contaminated at concentrations equivalent to MCLs and the Reference Doses (RfDS) for these contaminants are presented in the table below. An RfD represents the dose, which, if consumed for a lifetime, is not expected to result in any adverse health effects.

<u>COMPOUND</u>	<u>MCL (ug/l)</u>	<u>DOSE/MCL (mg/kg/day)</u>	<u>REFERENCE DOSE (mg/kg/day)</u>
1,1-DCE	7	2×10^{-4}	9×10^{-3} (USEPA, 1898)
trans-1,2-DCE	100	3×10^{-3}	2×10^{-2} (USEPA, 1990)
1,1,1-TCA	200	6×10^{-3}	9×10^{-2} (USEPA, 1990)
cis-1,2-DCE	70	2×10^{-3}	NA

Exposure to a concentration equivalent to an MCL would not result in a dose that exceeds any of the available RfDs. Although contaminant concentrations in a number of the study area wells are significantly higher than MCLs, it is not expected that exposures to contaminants at these concentrations would result in a dose in excess of any one RfD. However, if dose additivity is assumed, mixtures of similarly acting contaminants present in these wells may pose an unacceptable non-cancer risk. A more thorough evaluation of the non-carcinogenic risks associated with exposure to contaminant concentrations at these wells was beyond the scope of this assessment.

4.4.2 CARCINOGENIC HAZARD INDICES

Contamination was detected at concentrations below MCLs at 60 of the 117 wells. In all but 1 of these wells the carcinogenic hazard index is derived from PCE and/or TCE. A very low concentration of 1,2-DCE was detected in only one well. One of the evaluated wells had a carcinogenic hazard index greater than 1. For this well, an excess lifetime cancer risk of 8.3×10^{-6} has been calculated using standard exposure assumptions and Cancer Potency Factors of 5.1×10^{-2} and 1.1×10^{-2} for PCE and TCE respectively (USEPA, 1989).

Referring to the groundwater standards and associated cancer risks presented above, exposure to contaminant concentrations which result in a hazard index of 1 would be associated with an excess lifetime cancer risk of between approximately 7.2×10^{-6} and 1.3×10^{-4} , depending on the

components of the contaminant mixture. Because all other study area wells have carcinogenic hazard indices less than 1, the ELCR associated with exposure to drinking water at these wells will be less than 7.2×10^{-6} . Depending upon the particular regulatory framework used, these risks may or may not be considered significant.

4.4.3 NON-CARCINOGENIC HAZARD INDICES

Non-carcinogenic hazard indices did not exceed 1 for any of the wells at which contamination was detected at concentrations below MCLs. Therefore, the non-carcinogenic risks do not appear to be significant at these locations.

5.0 SUMMARY AND CONCLUSIONS

As a result of this study, the following conclusions were reached:

1. Based on the IEPA/USEPA data, a west-northwest trending plume of VOC contaminated groundwater extends across the study area from the vicinity of Reed Avenue and 24th Street. The contaminant plumes for TCE, 1,1,1-TCA, cis-1,2-DCE, 1,2-DCA, and 1,1-DCA have the same general features. Vinyl chloride and trans-1,2-DCE were detected at only a few locations in the study area. PCE had a distinctly shaped plume.
2. Based on the IDPH data, the plumes for TCE, 1,1,1-TCA, and 1,1-DCA show general features that are similar to the plumes for the IEPA/USEPA data.
3. Safe Drinking Water Act MCLs were exceeded for TCE, 1,1,1-TCA, cis-1,2-DCE, 1,2-DCA, 1,1-DCE, vinyl chloride, and lead, over various portions of the study area. The area where the TCE MCL is exceeded encompasses all of the other areas where any other MCL is exceeded except for a small area stretching from approximately Harrison Avenue and Kinsey Street to Wills Avenue and Marshall Street, and a single well located near 9th Street and Sandy Hollow Road (Figure 3-25).
4. Groundwater contamination by metals does not show a systematic distribution comparable to that observed for VOCs. Instead, localized metals contamination occurs at scattered locations across the study area, and appears to be the result of several unrelated point sources. Only two of the 117 samples collected for the Operable Unit remedial investigation exceeded an MCL for any metal.

5. At locations where MCLs were exceeded, levels of groundwater contamination pose both carcinogenic and non-carcinogenic health hazards. Outside the area where MCLs were exceeded, an evaluation of cumulative health risks showed that in general, Hazard Indices did not exceed 1. Non-carcinogenic health hazards in the study area do not appear to be significant. According to USEPA risk assessment guidance, a non-carcinogenic Hazard Index of less than 1 indicates that exposure to contaminants at these levels would not be associated with adverse health effects.
6. Contamination was detected above an MCL for one or more contaminants at 25 of the 117 wells sampled in this investigation. Excess lifetime cancer risk levels at a number of these wells are significantly greater than generally accepted cancer risk limits. Risks incurred as a result of exposure to non-carcinogenic contaminants in these wells may be significant if dose additivity is assumed.

6.0 REFERENCES

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APPENDIX A
SAMPLE COLLECTION SHEETS

Southeast Rockford Sample Collection Sheet

Address: 2819 S 4th Street Sample No: _____
 Resident's Name: Ester Bagley Samplers: Bob Hank
Robertson
 Date: 6/11 Sample Time: 1603
 Start Purge: 1551 Est. Flow Rate: 27 seconds
 End Purge: 1603 1 gal.

Stabilization Parameters:

<u>Trial</u>	<u>Time</u>	<u>pH</u>	<u>Conductivity</u>	<u>Temp.</u>
1	<u>1601</u>	<u>7.01</u>	<u>630</u>	<u>66°F</u>
2	<u>1602</u>	<u>7.03</u>	<u>630</u>	<u>66°F</u>
3	<u>1603</u>	<u>7.03</u>	<u>630</u>	<u>65°F</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: west side of house - outdoor
spigot

Water Softener or other treatment? NA water softener

Aerator on sample point spigot? None

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

NA

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 2828 S. 4th Street

Sample No: _____

Resident's Name: Mona Brown

Samplers: Bob Hank Robin Norton

Date: 6/11

Sample Time: 1525

Start Purge: 1509

Est. Flow Rate: 38 seconds

End Purge: 1525

1 gall

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.	RH
1	<u>1519</u>	<u>6.98</u>	<u>630</u>	<u>68°F</u>	<u>77°F</u>
2	<u>1522</u>	<u>7.02</u>	<u>730</u>	<u>77°F</u>	
3	<u>1524</u>	<u>7.07</u>	<u>730</u>	<u>77°F</u>	
4	<u>1525</u>	<u>7.07</u>	<u>730</u>	<u>77°F</u>	
5	_____	_____	_____	_____	
6	_____	_____	_____	_____	
7	_____	_____	_____	_____	

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Kitchen Sink

Water Softener or other treatment? No water softener

Aerator on sample point spigot? removed before sampling

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

approx 32-33 year old well

Other Comments: Single handle faucet

hard to determine exact cold water position

Southeast Rockford Sample Collection Sheet

Address: Leslie & Martha Wilson

Sample No: _____

Resident's Name: 2901 S. Fourth

Samplers: Scott Hodge / Rob. A. Nelson

Date: 6/12/90

Sample Time: 12:52

Start Purge: 12:39

Est. Flow Rate: 1 gallon 25 seconds

End Purge: 12:49

Stabilization Parameters:

<u>Trial</u>	<u>Time</u>	<u>pH</u>	<u>Conductivity</u>	<u>Temp.</u>
1	<u>12:49</u>	<u>8.01</u>	<u>620</u>	<u>62</u>
2	<u>12:50</u>	<u>8.07</u>	<u>610</u>	<u>63</u>
3	<u>12:51</u>	<u>8.05</u>	<u>610</u>	<u>63</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outdoor spigot on north side
of home

Water Softener or other treatment? Y

Aerator on sample point spigot? Y

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 3045 1 4th Sample No: _____
 Resident's Name: Douglas Brown Samplers: Norton/Butler
 Date: 6/14/90 Sample Time: 11:35
 Start Purge: 11:24 Est. Flow Rate: 1 qt in 7 sec.
 End Purge: 11:38

Stabilization Parameters:

<u>Trial</u>	<u>Time</u>	<u>pH</u>	<u>Conductivity</u>	<u>Temp.</u>
1	<u>11:35</u>	<u>4.57</u>	<u>760</u>	<u>64° F</u>
2	<u>11:36</u>	<u>4.55</u>	<u>740</u>	<u>60° F</u>
3	<u>11:37</u>	<u>4.57</u>	<u>740</u>	<u>60° F</u>
4	<u>11:38</u>	<u>4.51</u>	<u>720</u>	<u>60° F</u>
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outside spigot, south side
of house

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 2624 S Fifth Sample No: _____
 Resident's Name: Mark Ruczynski Samplers: Butler/Norton
 Date: 6/14/90 Sample Time: 15:10
 Start Purge: 14:47 Est. Flow Rate: _____
 End Purge: 15:09

Stabilization Parameters:

<u>Trial</u>	<u>Time</u>	<u>pH</u>	<u>Conductivity</u>	<u>Temp.</u>
1	<u>14:57</u>	<u>3.46</u>	<u>600</u>	<u>64</u>
2	<u>14:58</u>	<u>3.71</u>	<u>590</u>	<u>63.5</u>
3	<u>14:59</u>	<u>3.69</u>	<u>570</u>	<u>63.5</u>
4	<u>15:00</u>	<u>4.07</u>	<u>590</u>	<u>63</u>
5	<u>15:05</u>	<u>4.14</u>	<u>550</u>	<u>63</u>
6	<u>15:08</u>	<u>4.20</u>	<u>590</u>	<u>63.5</u>
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outside spigot north side of house

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 3115 S. 7th Sample No: _____
 Resident's Name: Amaro Villalobos Samplers: Butler / Norton
 Date: 6/14/90 Sample Time: 16:05
 Start Purge: 15:51 Est. Flow Rate: 1 ft. in 5 Sec.
 End Purge: 16:04

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1600</u>	<u>3.51</u>	<u>850</u>	<u>59°F</u>
2	<u>1603</u>	<u>3.57</u>	<u>800</u>	<u>59°F</u>
3	<u>1604</u>	<u>3.70</u>	<u>790</u>	<u>58°F</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

7.0

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outside spigot north side
house

Water Softener or other treatment? Yes, there was a filter, but
it was removed prior to sampling.

Aerator on sample point spigot? No.

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 3233 7th Sample No: _____
 Resident's Name: Mary Higdon Samplers: Bullock/Naftin
 Date: 6/13/90 Sample Time: 14:54
 Start Purge: 14:30 Est. Flow Rate: 1 quart in 2 seconds
 End Purge: 15:54

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	14:40	5.86	670	62
2	14:45	5.67	650	61
3	14:46	5.37	610	60
4	14:48	5.28	610	61
5	14:51	5.62	650	61
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:
 pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outside spigot south side house

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: Well only used for watering lawn,
washing car etc. On city water.

Southeast Rockford Sample Collection Sheet

Collection

Address: 3309 7th St Sample No: _____
 Resident's Name: Ruth Strickland Samplers: Butler / Norton
 Date: 6/14/90 Sample Time: 9:23
 Start Purge: 9:04 Est. Flow Rate: 1 qt. in 6 Sec.
 End Purge: 9:22

Stabilization Parameters:

<u>Trial</u>	<u>Time</u>	<u>pH</u>	<u>Conductivity</u>	<u>Temp.</u>
1	9:15	3.56	700	61°F
2	9:16	3.75	720	61°F
3	9:17	4.30	690	60°F
4	9:19	4.16	700	60°F
5	9:20	4.58	690	61°F
6	9:21	4.59	670	60°F
7	9:22	4.59	670	60°F

56
14

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outside spigot South side of house

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 2810 S. 8th Street

Sample No: _____

Resident's Name: Lloyd Tommie Minnick

Samplers: Butler Norton

Date: 6/13/90

Sample Time: 17:08

Start Purge: 16:50

Est. Flow Rate: 1 gallon 20 seconds

End Purge: 17:07

Stabilization Parameters:

<u>Trial</u>	<u>Time</u>	<u>pH</u>	<u>Conductivity</u>	<u>Temp.</u>
1	<u>17:04</u>	<u>4.96</u>	<u>610</u>	<u>61</u>
2	<u>17:05</u>	<u>5.05</u>	<u>610</u>	<u>60.5</u>
3	<u>17:07</u>	<u>5.20</u>	<u>610</u>	<u>59.5</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outdoor Spigot Northeast
Side of house

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 2914 8th St Sample No: _____

Resident's Name: Anna Reese Samplers: Butler / Norton

Date: 6/14/90 Sample Time: 12:30

Start Purge: 12:17

Est. Flow Rate: 1 quart in 6 seconds

End Purge: 12:29

Stabilization Parameters:

<u>Trial</u>	<u>Time</u>	<u>pH</u>	<u>Conductivity</u>	<u>Temp.</u>
1	<u>12:27</u>	<u>4.59</u>	<u>710</u>	<u>61</u>
2	<u>12:28</u>	<u>4.53</u>	<u>690</u>	<u>61</u>
3	<u>12:29</u>	<u>4.54</u>	<u>700</u>	<u>60</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:
 pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outside spigot in shed west side of house

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 3022 8th Sample No: _____
 Resident's Name: Anna Abbott Samplers: Lantz/Rhagat
 Date: 6/17 Sample Time: 1325
 Start Purge: 1254 Est. Flow Rate: 1.5 gal in 63 sec
 End Purge: 1322

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1317</u>	<u>7.14</u>	<u>690 μmhos</u>	<u>59°F</u>
2	<u>1318</u>	<u>7.18</u>	<u>690</u>	<u>58</u>
3	<u>1319</u>	<u>7.16</u>	<u>690</u>	<u>58</u>
4	<u>1319</u>	<u>7.16</u>	<u>690</u>	<u>58</u>
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outside spigot, Northeast side of house

Water Softener or other treatment? No water softener or other treatment

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

2" steel casing, Well has been here at least 6 years

Other Comments: Well is located in basement, line leading to outside spigot has about 5 feet of black dense plastic, most pipes are galvanized steel.

Southeast Rockford Sample Collection Sheet

Address: 3109 8th St.

Sample No: _____

Resident's Name: Phillip Jacobson

Samplers: Lantz / Bhagat

Date: 6/17

Sample Time: 1555

Start Purge: 1526

Est. Flow Rate: 2.5 gal in 2 min 5 sec
(125 sec)

End Purge: 1551

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1547</u>	<u>7.25</u>	<u>750 μmhos</u>	<u>56°F</u>
2	<u>1548</u>	<u>7.23</u>	<u>750</u>	<u>56</u>
3	<u>1549</u>	<u>7.24</u>	<u>760</u>	<u>56</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Kitchen Sink - No outside faucet

Water Softener or other treatment? No Water Softener

Aerator on sample point spigot? No - taken off before sampling

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Well is about 37' deep - driven. 2" steel well, Hit water at
around 26'

Other Comments: All pipes leading up to sample point are
galvanized steel

Southeast Rockford Sample Collection Sheet

Address: 3138 8th Sample No: _____
 Resident's Name: Robert Olomon Samplers: Lantz / Rhoads
 Date: 6/12 Sample Time: 1515
 Start Purge: 1546 Est. Flow Rate: 3.5 gal in 35 sec
 End Purge: 1512

Stabilization Parameters:

<u>Trial</u>	<u>Time</u>	<u>pH</u>	<u>Conductivity</u>	<u>Temp.</u>
1	<u>1507</u>	<u>7.32</u>	<u>950 umhos</u>	<u>55.5° F</u>
2	<u>1508</u>	<u>7.28</u>	<u>950</u>	<u>55.5</u>
3	<u>1509</u>	<u>7.27</u>	<u>950</u>	<u>55</u>
4	<u>1510</u>	<u>7.26</u>	<u>950</u>	<u>55</u>
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outside spigot on Northeast side of house

Water Softener or other treatment? No water softener or other treatment

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

All metal piping out to sample point, well is at least 33 years old, & 1" galvanized steel pipe to well

Other Comments: _____

Field sketch shown here.

Southeast Rockford Sample Collection Sheet

Address: 3201 S. 8th St. Sample No: _____
 Resident's Name: Mv. Gallegos Samplers: Butler / Nicks
 Date: 4/13/90 Sample Time: 11:03
 Start Purge: 10:47 Est. Flow Rate: 1 gallon in 20 Sec
 End Purge: 11:03

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>10:57</u>	<u>5.67</u>	<u>520</u>	<u>62°F</u>
2	<u>11:00</u>	<u>5.78</u>	<u>520</u>	<u>60°F</u>
3	<u>11:03</u>	<u>5.83</u>	<u>520</u>	<u>60°F</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outside spigot west side

of house

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 3237 8th St Sample No: _____
 Resident's Name: James Henderson Samplers: Butler / Norton
 Date: 6-13 Sample Time: 10:15
 Start Purge: 9:57 Est. Flow Rate: 1 gallon in 20 sec.
 End Purge: 10:25

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>10:07</u>	<u>6.35</u>	<u>790</u>	<u>60°F</u>
2	<u>10:13</u>	<u>6.26</u>	<u>790</u>	<u>60°F</u>
3	<u>10:15</u>	<u>6.38</u>	<u>790</u>	<u>61°F</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outside spigot west side of house

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: Brown faucet. Difficulty in getting samples
w/o bubbles. Attempted using several different flow rates.
Repeated attempts still resulted in samples w/ large
bubbles

Southeast Rockford Sample Collection Sheet

Address: 3301 1. 8th Street

Sample No: _____

Resident's Name: Mrs. Iris Eberle

Samplers: Burke / Norton

Date: 6/13/90

Sample Time: 9:44

Start Purge: 9:31

Est. Flow Rate: 2.5 gal in 50 Sec.

End Purge: 9:44

Stabilization Parameters:

<u>Trial</u>	<u>Time</u>	<u>pH</u>	<u>Conductivity</u>	<u>Temp.</u>
1	<u>9:42</u>	<u>6.54</u>	<u>830</u>	<u>61°F</u>
2	<u>9:43</u>	<u>6.51</u>	<u>810</u>	<u>60°F</u>
3	<u>9:44</u>	<u>6.47</u>	<u>800</u>	<u>62°F</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outside spigot on south side house

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 3337 8th Sample No: _____
 Resident's Name: MARVETA Ellenberger Samplers: Butler / Norton
 Date: 6/13/90 Sample Time: 9:15
 Start Purge: 9:47 Est. Flow Rate: 1 quart in 20 seconds
 End Purge: 9:14

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>8:57</u>	<u>5.82</u>	<u>720</u>	<u>67°F</u>
2	<u>9:00</u>	<u>5.65</u>	<u>700</u>	<u>62°F</u>
3	<u>9:01</u>	<u>5.80</u>	<u>690</u>	<u>62°F</u>
4	<u>9:03</u>	<u>6.16</u>	<u>690</u>	<u>61°F</u>
5	<u>9:12</u>	<u>6.46</u>	<u>700</u>	<u>66°F</u>
6	<u>9:13</u>	<u>6.48</u>	<u>690</u>	<u>63°F</u>
7	<u>9:14</u>	<u>6.49</u>	<u>690</u>	<u>62°F</u>

pH Cond. Temp.
 9:15 6.50 690 62°

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Kitchen spigot

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: Pressure pump turned on - had to turn off faucet. Will take 3 more pH, conductivity, and temperature tests;

Southeast Rockford Sample Collection Sheet

Address: 2910 9th St Sample No: _____

Resident's Name: Cramwell's Candy Fultz Samplers: Anton/Butler

Date: 6/15/90 Sample Time: 15:52

Start Purge: 15:36

Est. Flow Rate: 1 gallon 39 minutes

End Purge: 15:51

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	1547	8.92	620	67°F
2	1548	9.24	600	66°F
3	1550	9.32	600	67°F
4	1551	9.40	590	66°F
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

8.924
~~5.92~~
3.2
 9.32
 9.24
 .45

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: outdoor spigot on east side of house

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Resident doesn't know anything about the well.

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 3101 9th Sample No: _____

Resident's Name: Charlotte Thompson Samplers: 1225

Date: 6/17 Sunday Sample Time: 12:12 / Afternoon

Start Purge: 1157 Est. Flow Rate: 1 liter in 10 sec.

End Purge: 1223

Stabilization Parameters:

<u>Trial</u>	<u>Time</u>	<u>pH</u>	<u>Conductivity</u>	<u>Temp.</u>
1	<u>1218</u>	<u>7.26</u>	<u>670 μmhos</u>	<u>56.5°F</u>
2	<u>1219</u>	<u>7.31</u>	<u>670</u>	<u>56.5</u>
3	<u>1220</u>	<u>7.36</u>	<u>670</u>	<u>56.5</u>
4	<u>1221</u>	<u>7.33</u>	<u>670</u>	<u>56.5</u>
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Kitchen Sink

Water Softener or other treatment? No Water Softener or other treatment

Aerator on sample point spigot? No - taken off

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Well is at least 15 years old.

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 3210 9th St Sample No: _____

Resident's Name: Garry Smith Samplers: Butler/Norton

Date: 6/15/90 Sample Time: 11:11

Start Purge: 10:59

Est. Flow Rate: 1 gallon 36 seconds

End Purge: 11:11

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>11:09</u>	<u>5.98</u>	<u>600</u>	<u>61.5</u>
2	<u>11:10</u>	<u>5.99</u>	<u>600</u>	<u>62</u>
3	<u>11:11</u>	<u>5.98</u>	<u>600</u>	<u>62</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outside spigot east side of house

Water Softener or other treatment? Not sure, but we sampled

from outside spigot. ^{RM} if ^{RM} No. No Water Softener.

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) Don did

not have information. Father came out later.

Well made of metal pipes. No other info.

Other Comments: Father was asleep, but told children

to let us sample when we arrived. Don

did not. Call around 1:00pm. Mom came

out later

Southeast Rockford Sample Collection Sheet

Address: 3245 9th St

Sample No: _____

Resident's Name: Judy Bennett

Samplers: Horton / Butler

Date: 6/13/90 6/14/90

Sample Time: 9:44

Start Purge: +7:44 9:30

Est. Flow Rate: 1 gpm in seconds

End Purge: 9:43

Stabilization Parameters:

<u>Trial</u>	<u>Time</u>	<u>pH</u>	<u>Conductivity</u>	<u>Temp.</u>
1	<u>9:41</u>	<u>4.66</u>	<u>720</u>	<u>62° F</u>
2	<u>9:42</u>	<u>4.73</u>	<u>720</u>	<u>61° F</u>
3	<u>9:43</u>	<u>4.73</u>	<u>730</u>	<u>62° F</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

*Pump Stopped
6/13/90*

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outside spigot on west side of house

Water Softener or other treatment? no

Aerator on sample point spigot? no

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: 1st visit 6/13/90. Due to furnace & subsequent power outage we had to try sampling a second time on 6/14/90.

Southeast Rockford Sample Collection Sheet

Address: 3110 10th St Sample No: _____
 Resident's Name: William Pennell Samplers: Butler / Asher
 Date: 6/13/90 Sample Time: 18:22
 Start Purge: ~~6:04:03~~ 18:03 Est. Flow Rate: 1 quart in 6 seconds
 End Purge: 18:21

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	18:14	5.40	710	61
2	18:17	6.57	700	60
3	18:19	7.20	690	61
4	18:21	NA	700	60
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outside spigot south side of house

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 3102 16th St. Sample No: _____

Resident's Name: Tammie Bates Samplers: Lantz/Rys

Date: 6/13 Sample Time: 14:41

Start Purge: 14:22 Est. Flow Rate: 1/2 gal in 11 sec.
 End Purge: 14:41 (measured from M.H. jug)

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>14:36</u>	<u>7.32</u>	<u>540</u>	<u>58°F</u>
2	<u>14:37</u>	<u>7.31</u>	<u>540</u>	<u>55°F</u>
3	<u>14:39</u>	<u>7.33</u>	<u>530</u>	<u>56°F</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Spigot on E side of House

Water Softener or other treatment? No Water Softener or other treatment

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Resident doesn't know details.

Other Comments: Well is visible in yard SW of house

Lots of rust particles in purge water

Southeast Rockford Sample Collection Sheet

Address: 3122 16th Sample No: _____
 Resident's Name: Robert Jones Samplers: Lantz/Rys
 Date: 6/13 Sample Time: _____
 Start Purge: 14:56 Purge initiated Est. Flow Rate: 1 gal in 3 sec.
 START 1511
 End Purge: 1526

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1521</u>	<u>7.37</u>	<u>530</u>	<u>55</u>
2	<u>1522</u>	<u>7.31</u>	<u>520</u>	<u>54</u>
3	<u>1524</u>	<u>7.32</u>	<u>520</u>	<u>54</u>
4	<u>1525</u>	<u>7.36</u>	<u>510</u>	<u>54</u>
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outside spigot near porch on West
side of house

Water Softener or other treatment? No water softener or other treatment

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: Well is visible in bushes on west side of house
Well was worked on approx 10 days ago, resident doesn't
know what work was done

Southeast Rockford Sample Collection Sheet

Address: 3120 17th St. Sample No: _____

Resident's Name: Roger Schultz Samplers: Lantz/Ryza

Date: 6/13 Sample Time: 12:40

Start Purge: 12:22 Est. Flow Rate: 2.5 gal in 33 sec

End Purge: 12:40

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1235</u>	<u>7.37</u>	<u>505</u>	<u>55°F</u>
2	<u>1236</u>	<u>7.35</u>	<u>500</u>	<u>55°F</u>
3	<u>1237</u>	<u>7.34</u>	<u>500</u>	<u>55°F</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outside spigot on SW side of House

Water Softener or other treatment? existing softener is not hooked up -
softener is bypassed both in and outside house

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Resident doesn't know details of well. Seal on well was
replaced November of '84.

Other Comments: Well is visible in yard on SW side of house
Excessive amounts of bubbles in sampled water air of spigot
Sample taken just prior to start of major Thunder storm

Southeast Rockford Sample Collection Sheet

Address: 3110 18th Sample No: _____
 Resident's Name: Jeff Dobbs Samplers: Can+2/Rys
 Date: 6/13 Sample Time: 1831
 Start Purge: 18:10 Est. Flow Rate: 1 gal in 11 sec
 End Purge: 18:31

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1826</u>	<u>7.31</u>	<u>550</u>	<u>56°F</u>
2	<u>1827</u>	<u>7.31</u>	<u>550</u>	<u>55°F</u>
3	<u>1828</u>	<u>7.31</u>	<u>550</u>	<u>56°F</u> <u>~ 55°F</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: outside spigot on SW side of house

Water Softener or other treatment? No Water softener or other treatment

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Well drilled pre-1965

Other Comments: well is visible in peonies in front yard

*Field Blank collected here. Was difficult to obtain
A good VOC sample 2 bubbles were an excessive problem

Southeast Rockford Sample Collection Sheet

Address: 2703 20th Sample No: _____
 Resident's Name: Sharon White Samplers: Lantz/Blasquez
 Date: 6/17 Sample Time: 1630
 Start Purge: 1605 Est. Flow Rate: 2.5 gal in 24 sec.
 End Purge: 1626

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1622</u>	<u>7.33</u>	<u>465 μmhos</u>	<u>56°F</u>
2	<u>1623</u>	<u>7.23</u>	<u>465</u>	<u>56</u>
3	<u>1624</u>	<u>7.33</u>	<u>460</u>	<u>56</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outside spigot, Southwest side of house

Water Softener or other treatment? In basement but not hooked up according to resident

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.)

Resident doesn't know details of well construction.

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 3109 20th Sample No: _____
 Resident's Name: Robert Williams Samplers: Lantz/Rys
 Date: 6/13 Sample Time: 10:55
 Start Purge: 10:36 Est. Flow Rate: 2.51 / 25 seconds
 End Purge: 10:55

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1046</u>	<u>7.25</u>	<u>490</u>	<u>58°F</u>
2	<u>1050</u>	<u>7.31</u>	<u>477</u>	<u>56°F</u>
3	<u>10:51</u>	<u>7.30</u>	<u>472</u>	<u>56°F</u>
4	<u>10:52</u>	<u>7.31</u>	<u>472</u>	<u>55°F</u>
5	<u>10:53</u>	<u>7.31</u>	<u>471</u>	<u>55°F</u>
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outside spigot on West side of house
(brass)

Water Softener or other treatment? No Water Softener or other treatment

Aerator on sample point-spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Well was drilled in ~1960, extended to approx. 150' in ~1980.
6" diameter steel casing.

Other Comments: Well is on SW side of house

Southeast Rockford Sample Collection Sheet

Address: 505 Barrington Rd. Sample No: _____
 Resident's Name: Leo Olszewski Samplers: Lantz/Blagot
 Date: 6/19 Sample Time: 1805
 Start Purge: 1743 Est. Flow Rate: 2.5 gal. in 30 sec.
 End Purge: 1803

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1800</u>	<u>7.12</u>	<u>750 μmhos</u>	<u>57.5°F</u>
2	<u>1801</u>	<u>7.16</u>	<u>750</u>	<u>57</u>
3	<u>1802</u>	<u>7.14</u>	<u>740</u>	<u>57</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outside Spigot, Southeast side of house

Water Softener or other treatment? Filtration on ^{Kitchen only} sinks, but outside spigot bypasses filter.

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Well is 60 feet deep, steel pipe. Water is at 46 feet.

Other Comments: _____

Southeast Rockford Sample Collection Sheet

CEL

Address: 426 Barry Sample No: _____

Resident's Name: Mrs. Stella Lindenberg Samplers: Norton / Butler

Date: 15:48 6/18/90 Sample Time: 16:01

Start Purge: 15:48

Est. Flow Rate: 1 gallon 25 seconds

End Purge: 16:00

Stabilization Parameters:

<u>Trial</u>	<u>Time</u>	<u>pH</u>	<u>Conductivity</u>	<u>Temp.</u>
1	<u>15:58</u>	<u>7.35</u>	<u>710</u>	<u>62</u>
2	<u>15:59</u>	<u>7.36</u>	<u>702</u>	<u>61</u>
3	<u>16:00</u>	<u>7.36</u>	<u>700</u>	<u>61</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outdoor spigot, north side of house

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

25 feet deep; ~25 yrs old

Other Comments: Alternate for #15 Kernon

Southeast Rockford Sample Collection Sheet

Address: 3017 Bildahl Sample No: _____
 Resident's Name: George Nelson Samplers: Butler/Nodge
 Date: 6/19/90 Sample Time: 2:50
 Start Purge: 2:35 Est. Flow Rate: 2.5 gal in 40 sec
 End Purge: 2:50

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>2:45</u>	<u>7.34</u>	<u>768</u>	<u>63.5°F</u>
2	<u>2:46</u>	<u>7.29</u>	<u>772</u>	<u>63.1°F</u>
3	<u>2:47</u>	<u>7.27</u>	<u>779</u>	<u>63.0°F</u>
4	<u>2:48</u>	<u>7.32</u>	<u>779</u>	<u>62.9°F</u>
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Southwest corner of house - spigot.

Water Softener or other treatment? no

Aerator on sample point spigot? no

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

- age - approx. 40-45 yrs. old; approx. 38 ft. deep;
- slotted steel, Johnson Point; 25 gallon tank

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 3038 Beldell Sample No: _____

Resident's Name: Mrs Margaret Van Vorhes Samplers: Norton/Butler

Date: 6/15/90 Sample Time: 12:15^{PM} or 12:23

Start Purge: 12:02

Est. Flow Rate: 1 gallon in 40 seconds

End Purge: 12:22

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>12:12</u>	<u>8.71</u>	<u>750</u>	<u>63</u>
2	<u>12:13</u>	<u>8.61</u>	<u>650</u>	<u>63</u>
3	<u>12:14</u>	<u>8.19</u>	<u>690</u>	<u>63</u>
4	<u>12:14</u>	<u>7.62</u>	<u>690</u>	<u>63</u>
5	<u>12:15</u>	<u>7.37</u>	<u>790</u>	<u>63</u>
6	<u>12:19</u>	<u>7.05</u>	<u>750</u>	<u>63</u>
7	<u>12:22</u>	<u>7.01</u>	<u>750</u>	<u>63</u>

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Kitchen spigot

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Resident didn't have any information on her well.

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 3122 Birdahl Sample No: _____
 Resident's Name: Delos Kewish Samplers: Lantz/Bhagat
 Date: 6/16 Sample Time: 1445
 Start Purge: ~~1458~~ RL 1415 Est. Flow Rate: 35 gal in 38 sec
 End Purge: 1433

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1433</u>	<u>7.15</u>	<u>753</u>	<u>60.5</u>
2	<u>1435</u>	<u>7.15</u>	<u>733</u>	<u>58.2</u>
3	<u>1436</u>	<u>7.15</u>	<u>730</u>	<u>57.8</u>
4	<u>143</u>	<u>7.14</u>	<u>720</u>	<u>57.8</u>
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outside spigot, ^{southeast} back side of house
(sample spigot changed after looking at well & plumbing)

Water Softener or other treatment? Water softener inside house, but
outside tap bypasses softener

Aerator on sample point spigot? _____

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Resident doesn't know details of well construction, well
was probably drilled pre-1950

Other Comments: Well is located in basement of house
Duplicate sample taken here. Rain ceased prior to
sampling. Sand is present in well water (reddish color)

Southeast Rockford Sample Collection Sheet

Address: Calene^{no} 3141 Bildahl Sample No: _____

Resident's Name: Calene Bellows Samplers: Buller/Marta

Date: 6/15/90 Sample Time: 12:50

Start Purge: 12:37 Est. Flow Rate: 1 gallon in 36 seconds

End Purge: 12:49

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	1247	7.56	760	62 °F
2	1248	7.68	750	60 °F
3	1249	7.52	740	60 °F
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outside spigot west side of home

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: Mrs. Bellows was aware that we would be coming to sample. However, she was out (until 9:00pm) at the time. The babysitter allowed us to sample.

Southeast Rockford Sample Collection Sheet

Address: 3206 Bildahl Sample No: _____
 Resident's Name: Linda Kesley Samplers: Luntz/Blazat
 Date: 6/16 Sample Time: 1530
 Start Purge: 1503 Est. Flow Rate: 2.5 gal/min 37 sec
 End Purge: 1526

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	15:22	7.07	722 μmhos	59.8°F
2	15:23	7.08	710	58.9
3	15:24	7.09	710	58.7
4	15:25	7.07	710	58.7
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outside spigot north side of house.

Water Softener or other treatment? Water softener is bypassed by outside spigot.

Aerator on sample point spigot? NO

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

2" steel n3/8" pipe, Well is at least 17 years old. Well depth is approximately 40 feet.

Other Comments: Line leading to faucet is PVC. Well is located in basement of house. Matrix Spike Sample Taken here.

Southeast Rockford Sample Collection Sheet

Address: 3302 Bullock Sample No: _____
 Resident's Name: Irvin Miller Samplers: Norton / Butler
 Date: 6/15/90 Sample Time: 14:26
 Start Purge: 14:07 Est. Flow Rate: 1 gallon in 28 seconds
 End Purge: 14:25

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>14:17</u>	<u>8.85</u>	<u>710</u>	<u>62</u>
2	<u>14:20</u>	<u>8.39</u> ^{8.39}	<u>710</u>	<u>63.5</u>
3	<u>14:24</u>	<u>8.33</u>	<u>710</u>	<u>64</u>
4	<u>14:25</u>	<u>8.34</u>	<u>710</u>	<u>63</u>
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: North side
South of house garage - outdoor
spigot

Water Softener or other treatment? NO

Aerator on sample point spigot? NO

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Well is ~ 20 yrs old & is ~ 60 ft deep. Well plumbing
in house is metal, but pipes leading to outdoor well are PVC.

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 3338 Bildahl Sample No: _____
 Resident's Name: Walter Corey Samplers: Norton/Butler
 Date: 6-15-90 Sample Time: 15:00
 Start Purge: 14:45 Est. Flow Rate: 1 gallon / 10 mins
 End Purge: 14:59

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1455</u>	<u>8.14</u>	<u>690</u>	<u>61°F</u>
2	<u>1457</u>	<u>8.07</u>	<u>640</u>	<u>60°F</u>
3	<u>1459</u>	<u>8.11</u>	<u>650</u>	<u>59°F</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outdoor spigot; east side house

Water Softener or other treatment? Yes, but not hooked up to outdoor spigot

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) The resident had no information about the well.

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 110 Brooke Sample No: _____
 Resident's Name: Ray McElyea Samplers: Almanzi / Hodge
 Date: 6-17-90 Sample Time: ~~1438~~ 1440
 Start Purge: 1421 Est. Flow Rate: 2.5 gal / 17 sec.
 End Purge: 1439

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1436</u>	<u>7.27</u>	<u>827 μmh_o</u>	<u>71.4°</u>
2	<u>1437</u>	<u>7.28</u>	<u>782 μmh_o</u>	<u>65.5°</u>
3	<u>1438</u>	<u>7.28</u>	<u>775 μmh_o</u>	<u>65.5°</u>
4	<u>1439</u>	<u>7.29</u>	<u>774 μmh_o</u>	<u>64.4°</u>
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: West side of house (spigot)

Water Softener or other treatment? None

Aerator on sample point spigot? NO

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) ~40 yds old, steel const.

Other Comments: None (Teflon tape on spigot)

Southeast Rockford Sample Collection Sheet

Address: 202 Brooke Sample No: _____
 Resident's Name: John Kaczuk Samplers: Bob Hunt / Robin Hunt
 Date: 6/12/80 Sample Time: 1 quart in 15 seconds
 Start Purge: 1642 Est. Flow Rate: 1655
 End Purge: 1655

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1652</u>	<u>7.13</u>	<u>610</u>	<u>59</u>
2	<u>1653</u>	<u>7.15</u>	<u>600</u>	<u>60</u>
3	<u>1655</u>	<u>7.28</u>	<u>600</u>	<u>59</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: kitchen spigot

Water Softener or other treatment? no

Aerator on sample point spigot? no

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) 23 ft deep

Well made of metal, however, thinks its iron.

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 326 Brooke

Sample No: _____

Resident's Name: Joseph Conti

Samplers: Bob Hank / Robin Norton

Date: 6/12/90

Sample Time: 11:23

Start Purge: 16:06

Est. Flow Rate: 1 gallon 25 seconds

End Purge: 16:31

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>16:16</u>	<u>7.30</u>	<u>400</u>	<u>60</u>
2	<u>16:19</u>	<u>7.40</u>	<u>400</u>	<u>60</u>
3	<u>16:22</u>	<u>7.40</u>	<u>405</u>	<u>60</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outside spigot

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) Well

is about 24 ft deep. This well put in 6 years ago. In that well just 2 feet away

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 409 Bruce Sample No: _____
 Resident's Name: Debbie Gardner Samplers: Robin Norton / Bob Hank
 Date: 6/12/90 Sample Time: 15:37
 Start Purge: 15:22 Est. Flow Rate: 1 quart at 10 seconds
 End Purge: 15:32

Stabilization Parameters:

<u>Trial</u>	<u>Time</u>	<u>pH</u>	<u>Conductivity</u>	<u>Temp.</u>
1	<u>15:32</u>	<u>7.46</u>	<u>700</u>	<u>64</u>
2	<u>15:34</u>	<u>7.47</u>	<u>700</u>	<u>64</u>
3	<u>15:35</u>	<u>7.47</u>	<u>700</u>	<u>64</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: kitchen spigot

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 823 Brooke Sample No: _____
 Resident's Name: Betty Bloom Samplers: Lantz/Butter
 Date: 6/12/90 Sample Time: 16:22
 Start Purge: 15:57 Est. Flow Rate: 2.5 gal in 1:15 sec.
 End Purge: 16:22

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1615</u>	<u>7.05</u>	<u>700</u>	<u>58°F</u>
2	<u>1617</u>	<u>7.05</u>	<u>690</u>	<u>58°F</u>
3	<u>1619</u>	<u>7.04</u>	<u>690</u>	<u>58°F</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: kitchen sink

Water Softener or other treatment? No water softener or treatment

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Well is probably about 50 years old, No other detail known

Other Comments: Duplicate taken here;

Southeast Rockford Sample Collection Sheet

Address: 1202 Brooke Sample No: _____
 Resident's Name: Oscar Cronquist Samplers: Burke/Norton
 Date: 6/14/90 Sample Time: 1635
 Start Purge: 1620 Est. Flow Rate: 1 quart in 12 seconds
 End Purge: 1634

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1631</u>	<u>4.66</u>	<u>850</u>	<u>66° F</u>
2	<u>1632</u>	<u>4.66</u>	<u>800</u>	<u>65° F</u>
3	<u>1633</u>	<u>4.74</u>	<u>800</u>	<u>65° F</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Kitchen spigot

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 1317 Brooke Sample No: _____
 Resident's Name: Monica Hinkle Samplers: Butler / Norton
 Date: 6/14/90 Sample Time: 1741
 Start Purge: 1723 Est. Flow Rate: 1 quart in 8 seconds
 End Purge: 1739

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1733</u>	<u>4.45</u>	<u>650</u>	<u>59°F</u>
2	<u>1734</u>	<u>4.79</u>	<u>650</u>	<u>59°F</u>
3	<u>1737</u>	<u>4.46</u>	<u>650</u>	<u>59°F</u>
4	<u>1739</u>	<u>4.45</u>	<u>640</u>	<u>58°F</u>
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outside spigot east side of house
 Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 2801 Collins Sample No: _____
 Resident's Name: Harmer King Samplers: Lantz / Rys
 Date: 6/13 Sample Time: 16:28
 Start Purge: 16:08 Est. Flow Rate: 1 gal in 10 sec.
 End Purge: 16:28

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>16:23</u>	<u>7.25</u>	<u>620</u>	<u>56°F</u>
2	<u>16:24</u>	<u>7.23</u>	<u>620</u>	<u>56°F</u>
3	<u>16:25</u>	<u>7.23</u>	<u>620</u>	<u>56°F</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Spigot on Well House on SW side of House

Water Softener or other treatment? No water softener or other treatment

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Well was driven 2 yrs ago, 50 feet deep, 2" steel pipe
Residents say water is ~30 feet

Other Comments: Collected Matrix Spike Duplicate

Southeast Rockford Sample Collection Sheet

Address: 3029 Collins Sample No: _____
 Resident's Name: Bill Cofield Samplers: Butler / Norton
 Date: 6/14/90 Sample Time: 14:35
 Start Purge: 14:19 Est. Flow Rate: 1 quad in 6 sec or less
 End Purge: 14:34

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>14:29</u>	<u>4.08</u>	<u>750</u>	<u>62°F</u>
2	<u>14:31</u>	<u>4.02</u>	<u>710</u>	<u>62°F</u>
3	<u>14:33</u>	<u>4.58</u>	<u>710</u>	<u>62°F</u>
4	<u>14:34</u>	<u>4.01</u>	<u>710</u>	<u>62°F</u>
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outside spigot south side
house

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 3126 Collins Sample No: 1
 Resident's Name: Mark Boyd Samplers: Lantz / Blagat
 Date: 6/16/90 Sample Time: 1215
 Start Purge: 11:53 Est. Flow Rate: 2.5 gpm in 610 sec.
 End Purge: 1213

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1209</u>	<u>7.39</u>	<u>650 μmhos</u>	<u>56°F</u>
2	<u>1210</u>	<u>7.40</u>	<u>640</u>	<u>56</u>
3	<u>1211</u>	<u>7.41</u>	<u>650</u>	<u>56</u>
4	<u> </u>	<u> </u>	<u> </u>	<u> </u>
5	<u> </u>	<u> </u>	<u> </u>	<u> </u>
6	<u> </u>	<u> </u>	<u> </u>	<u> </u>
7	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Purge is adequate if three consecutive readings fall within these ranges:
 pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outside spigot beneath awning on
South side of house

Water Softener or other treatment? No water softener or other treatment

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.)

Other Comments: Sample point is protected from rain
by awning

Southeast Rockford Sample Collection Sheet

Address: 3245 Collins Sample No: _____
 Resident's Name: John Barefield Samplers: Lantz/Rys
 Date: 6/13 Sample Time: 17:10
 Start Purge: 16:49 Est. Flow Rate: 1 gal in 15 sec
 End Purge: 17:09

Stabilization Parameters:

<u>Trial</u>	<u>Time</u>	<u>pH</u>	<u>Conductivity</u>	<u>Temp.</u>
1	<u>17:03</u>	<u>7.22</u>	<u>610</u>	<u>86°F</u>
2	<u>17:05</u>	<u>7.24</u>	<u>590</u>	<u>57°F</u>
3	<u>17:06</u>	<u>7.24</u>	<u>580</u>	<u>57°F</u>
4	<u>17:07</u>	<u>7.26</u>	<u>580</u>	<u>57°F</u>
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outside Spigot on SW side of house

Water Softener or other treatment? Water Softener bypassed on outside tap.

Aerator on sample point spigot? No.

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Drilled before 1950, Resident doesn't know other details.

Other Comments: Well is in basement

Southeast Rockford Sample Collection Sheet

Address: 3310 Collins Sample No: _____
 Resident's Name: Tom Flippin Jr Samplers: Norton/Butler
 Date: 6/13/90 Sample Time: 11:32
 Start Purge: 11:17 Est. Flow Rate: 1 gallon in 17 seconds
 End Purge: 11:32

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	11:27	5.95	650	62°F
2	11:29	5.77	680	59°F
3	11:30	5.71	600	59°F
4	11:31	5.68	590	59°F
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outside spigot ^{South} side of house

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 3045 Grant Park Blvd Sample No: _____
 Resident's Name: Robert Hancock Samplers: Almaney / Hodge
 Date: 6-16-90 Sample Time: 1214
 Start Purge: 1146 Est. Flow Rate: 1 qt. / 4 sec.
 End Purge: 1212

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1204</u>	<u>7.24</u>	<u>495 μmho</u>	<u>65.2°</u>
2	<u>1208</u>	<u>7.29</u>	<u>480 μmho</u>	<u>62.6°</u>
3	<u>1210</u>	<u>7.33</u>	<u>476 μmho</u>	<u>62°</u>
4	<u>1211</u>	<u>7.32</u>	<u>474 μmho</u>	<u>62°</u>
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: N.W. side of House.

Water Softener or other treatment? NONE

Aerator on sample point spigot? NO (spigot)

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Steel, Shallow, N 1760

Other Comments: NONE (Field Blank collected at this location) (sample time 1216)

Southeast Rockford Sample Collection Sheet

Address: 3107 Grant Park Blvd. Sample No: _____
 Resident's Name: Orville Morris Samplers: Alwan Hodge
 Date: 6-17-92 Sample Time: 1314
 Start Purge: 1255 Est. Flow Rate: 2.5 gal / 91 sec.
 End Purge: 1313

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1308</u>	<u>7.12</u>	<u>656 μho</u>	<u>69°</u>
2	<u>1309</u>	<u>7.13</u>	<u>637 μho</u>	<u>66°</u>
3	<u>1310</u>	<u>7.13</u>	<u>633 μho</u>	<u>64.6°</u>
4	<u>1311</u>	<u>7.11</u>	<u>630 μho</u>	<u>64.3°</u>
5	<u>1312</u>	<u>7.13</u>	<u>626 μho</u>	<u>64.1°</u>
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{hos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Kitchen Sink

Water Softener or other treatment? Cold water is not softened.

Aerator on sample point spigot? yes But Removed.

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) ~ 36 Ft. Deep. Galvanized Steel,

Other Comments: Hot water is softened Cold is not.

Southeast Rockford Sample Collection Sheet

Address: 1630 Hamilton Sample No: _____
 Resident's Name: Helen Marquette Samplers: Martin/Butler
 Date: 6/18/90 Sample Time: 10:56
 Start Purge: 10:34 Est. Flow Rate: 1 gallon 48 seconds
 End Purge: 10:55

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>10:50</u>	<u>7.27</u>	<u>640 ^{µm} 610</u>	<u>61.5</u>
2	<u>10:54</u>	<u>7.30</u>	<u>590</u>	<u>59.5</u>
3	<u>10:55</u>	<u>7.32</u>	<u>580</u>	<u>59.5</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Bathroom spigot.

Water Softener or other treatment? No.

Aerator on sample point spigot? No.

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) Well is about 40 years old. No other information is available.

Other Comments: Some suspended solids in water.

Southeast Rockford Sample Collection Sheet

Address: 1735 Hamilton Sample No: _____
 Resident's Name: Karen Chesner Samplers: Lantry, Butler
 Date: 6/11/90 Sample Time: 2:13
 Start Purge: 1:56 Est. Flow Rate: 2.5 gal in 25 sec
 End Purge: 2:13

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>2:07</u>	<u>7.23</u>	<u>610</u>	<u>64°F</u>
2	<u>2:08</u>	<u>7.25</u>	<u>600</u>	<u>59°F</u>
3	<u>2:09</u>	<u>7.25</u>	<u>600</u>	<u>60°F</u>
4	<u>2:11</u>	<u>7.24</u>	<u>600</u>	<u>59.5°F</u>
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outside spigot, SE corner of House

Water Softener or other treatment? _____

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) unknown

Other Comments: Recently installed pump
Well is visible west side of house
Steel construction

Southeast Rockford Sample Collection Sheet

Address: 1713 Harrison Sample No: _____
 Resident's Name: George Kirelinger Samplers: Cont 2 / Alternates
 Date: 6/15 Sample Time: 1515
 Start Purge: 1455 Est. Flow Rate: 2.5 gal in 45 sec
 End Purge: 1510

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1514</u>	<u>7.14</u>	<u>640 μMc</u>	<u>56.5°</u>
2	<u>1516</u>	<u>7.15</u>	<u>630 μMc</u>	<u>56°</u>
3	<u>1516</u>	<u>7.15</u>	<u>630 μMc</u>	<u>56°</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outside tap on west side of house

Water Softener or other treatment? No water softener or filters.

Aerator on sample point spigot? _____

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

well is 48' deep, 2" steel casing - PVC running to pump

Other Comments: Well is located in basement

Southeast Rockford Sample Collection Sheet

Address: 1817 Harrison Sample No: _____
 Resident's Name: Rivenda Baynham Samplers: Lynn + Z/Almanza
 Date: 6/18 Sample Time: 1125
 Start Purge: 1053 Est. Flow Rate: 1 liter in 5 sec
 End Purge: 1118

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1113</u>	<u>7.20</u>	<u>709</u>	<u>58.4°F</u>
2	<u>1114</u>	<u>7.20</u>	<u>6700</u>	<u>57.8°F</u>
3	<u>1115</u>	<u>7.21</u>	<u>700</u>	<u>58.0°F</u>
4	<u>1116</u>	<u>7.20</u>	<u>696</u>	<u>58.0°F</u>
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outside spigot, south side of House

Water Softener or other treatment? ?

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: Resident Not Home

Matinge Spoke duplicate taken here.

Well is located in backyard in a pit near fence, west of back porch. Black HDPE pipe leads from well to house.

Southeast Rockford Sample Collection Sheet

Address: Victory Tap
2315 Harrison Sample No: _____

Resident's Name: Connie Brumudez Samplers: Counte/Rys
 (wh) 399-8922

Date: 6/13 Sample Time: 12:00

Start Purge: 10:36 Est. Flow Rate: 2.5 gal in 25 sec.

End Purge: 11:57

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>11:51</u>	<u>7.14</u>	<u>640</u>	<u>56°</u>
2	<u>11:53</u>	<u>7.13</u>	<u>640</u>	<u>57°</u>
3	<u>11:54</u>	<u>7.13</u>	<u>640</u>	<u>57° PL 55°</u>
4	<u>11:55</u>	<u>7.14</u>	<u>640</u>	<u>55°</u>
5	<u>11:56</u>	<u>7.14</u>	<u>640</u>	<u>55°</u>
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Brass spigot near door on S. Side of Bldg.

Water Softener or other treatment? Water softener is used, but sample ^{spigot} is
definitely not softened.

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Manager* does not know any details about well.

*Connie

Other Comments: Angie Provenzano is owner of bldg.

Well is located in concrete well house on S. end
of building. Duplicate Sample TAKEN Here.

Purge water is cloudy.

Southeast Rockford Sample Collection Sheet

Address: 3124 Horizon Sample No: _____
 Resident's Name: David Reuk Samplers: Lauritz / Alvarado
 Date: 6/15 Sample Time: 11:50
 Start Purge: 11:18²⁴ Est. Flow Rate: Approx 1 gal in 15 sec
 End Purge: 11:42²⁴ (can't measure accurately because faucet is at ground level.)

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1136</u>	<u>7.32</u>	<u>550 μMc</u>	<u>55.5°</u>
2	<u>1137</u>	<u>7.31</u>	<u>570 μMc</u>	<u>55.5°</u>
3	<u>1139</u>	<u>7.28</u>	<u>550 μMc</u>	<u>55°</u>
4	<u>1140</u>	<u>7.30</u>	<u>550 μMc</u>	<u>55°</u>
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:
 pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outside spigot near garage at front (E³ side) of house

Water Softener or other treatment? Probably not

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Well is at least 13 years old, resident doesn't know other details of well construction

Other Comments: Well is visible in front yard, east of house near fence. Resident is pretty sure she doesn't pay water bill
* Duplicate Sample taken here

Southeast Rockford Sample Collection Sheet

Address: 1237 Johnson Sample No: _____

Resident's Name: Lauri Edwards Samplers: Lantz, Butler

Date: 6/11/90 Sample Time: 2:52

Start Purge: 2:35

Est. Flow Rate: 2.5 gal in 29 seconds

End Purge: 2:52

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	2:46	7.04	620	56°F
2	2:48	7.03	625	55.5°F
3	2:49	7.01	620	55°F
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: SW corner of house; outside spigot

Water Softener or other treatment? No water softener.

Aerator on sample point spigot? NO

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Probably installed in 1940's,

Other Comments: House is on well water; Duplicate sample to be taken here

Southeast Rockford Sample Collection Sheet

Address: Bill Hopper Sample No: _____
 Resident's Name: 410 Kinnon Samplers: Butler / Norton
 Date: 4/19/90 Sample Time: ~~4:11~~ PM 4:12
 Start Purge: 4:00 Est. Flow Rate: 2.5 gal in 1 min
 End Purge: ~~4:11~~ PM 4:12 and 50 gal

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>4:08</u>	<u>7.31</u>	<u>704</u>	<u>65° F</u>
2	<u>4:09</u>	<u>7.29</u>	<u>686</u>	<u>62.4° F</u>
3	<u>4:10</u>	<u>7.27</u>	<u>683</u>	<u>62.5° F</u>
4	<u>4:11</u>	<u>7.25</u>	<u>680</u>	<u>62.3° F</u>
5	<u>4:12</u>	<u>7.26</u>	<u>685</u>	<u>63° F</u>
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: inside faucet

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) drilling

know any of above -

Other Comments: water tested by IDPH approx. 5 months
ago by PASSC. holding tank; will do MSD here.

Southeast Rockford Sample Collection Sheet

Address: 621 Benson Sample No: _____
 Resident's Name: Robert & Merianne Darrake Samplers: Horton / Butler
 Date: 6/18/90 Sample Time: 16:29
 Start Purge: 16:15 Est. Flow Rate: 1 gallon 20 seconds
 End Purge: 16:28

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>16:26</u>	<u>7.29</u>	<u>760</u>	<u>60.1°F</u>
2	<u>16:27</u>	<u>7.32</u>	<u>720</u>	<u>59.5°F</u>
3	<u>16:28</u>	<u>7.34</u>	<u>720</u>	<u>59.5°F</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:
 pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outdoor spigot; west side of house.

Water Softener or other treatment? No.

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) No

Resident had no information

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 3037 Kishwaukee Sample No: _____
 Resident's Name: Filawich Samplers: Laura Almanza
 Date: 6/14 Sample Time: 1955
 Start Purge: 1925 Est. Flow Rate: 2.5 gal in 55 sec.
 End Purge: 1950

Stabilization Parameters:

<u>Trial</u>	<u>Time</u>	<u>pH</u>	<u>Conductivity</u>	<u>Temp.</u>
1	<u>1953</u>	<u>7.24</u>	<u>813</u>	<u>61.0°F</u>
2	<u>1951</u>	<u>7.26</u>	<u>813</u>	<u>61.0°F</u>
3	<u>1952</u>	<u>7.25</u>	<u>813</u>	<u>61.0°F</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outside spigot, north side of house

Water Softener or other treatment? Yes, but can be bypassed by
valve on softener, which is about in bypass position

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Resident doesn't want to talk about well.

Other Comments: Well is located in concrete pit north of house

Southeast Rockford Sample Collection Sheet

Address: 3202 19th Avenue Sample No: _____
 Resident's Name: Ellen Ohnstad Samplers: Butler / N. N.
 Date: 6/15/90 Sample Time: 11:39
 Start Purge: 11:26 Est. Flow Rate: 1 gallon in 32 seconds
 End Purge: 11:39

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>11:37</u>	<u>6.74</u>	<u>610</u>	<u>59</u>
2	<u>11:38</u>	<u>6.62</u>	<u>610</u>	<u>59</u>
3	<u>11:39</u>	<u>6.55</u>	<u>610</u>	<u>59</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:
 pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Kitchen spigot

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) NA

Ohnstad to the drill not have anything about the well.

Other Comments: This site used to be a gas station.

Southeast Rockford Sample Collection Sheet

Address: 3239 Kishwaukee Sample No: _____
 Resident's Name: Larry Phillips Samplers: Biller/Norton
 Date: 6/14/90 Sample Time: 10:13
 Start Purge: 9:58 Est. Flow Rate: 1 quart in 7 seconds
 End Purge: 10:12

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	10:08	4.67	670	62
2	10:09	4.64	670	61
3	10:10	4.61	760	61
4	10:11	4.56	720	61
5	10:12	4.54	710	61
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outside spigot west side house

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: instead of 615 Sawyer

Southeast Rockford Sample Collection Sheet

Address: 3302 Kishwaukee Sample No: _____
 Resident's Name: Thomas Bader Samplers: Norwin Bultar
 Date: 6/14/90 Sample Time: 10:44
 Start Purge: 10:28 Est. Flow Rate: 1 qt in seconds
 End Purge: 10:43

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>10:39</u>	<u>4.65</u>	<u>500</u>	<u>62</u>
2	<u>10:41</u>	<u>4.42</u>	<u>650</u>	<u>60</u>
3	<u>10:42</u>	<u>4.39</u>	<u>690</u>	<u>60.5</u>
4	<u>10:43</u>	<u>4.32</u>	<u>696</u>	<u>60</u>
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outside spigot, east side house

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 3013 Lapuy Sample No: _____
 Resident's Name: Chris Wincapaw Samplers: Butler/Hodge
 Date: 6/19/90 Sample Time: ~~11:35~~ 11:45
 Start Purge: 11:20 Est. Flow Rate: 2.5 gal in 1 min, 17
 End Purge: ~~11:35~~ 11:45

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.	TIME	pH	Cond.	TE
1	11:37	7.25	868	64.5°F	8. 11:43	7.24	825	U?
2	11:38	7.25	849	63°F	9. 11:44	7.25	825	63.
3	11:39	7.24	837	61.8°F				
4	11:40	7.25	836	61.5°F				
5	11:41	7.25	851	62.4°F				
6	11:41	7.25	817	63.4°F				
7	11:42	7.24	822	63.6°F				

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: West Side of house -

Water Softener or other treatment? NO

Aerator on sample point spigot? no

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) resident
(20-30 ft. deep)
thinks well is shallow; does not know any other info
on well -

Other Comments: Duplicate taken here -

Southeast Rockford Sample Collection Sheet

Address: 3101 LAPEY Sample No: _____
 Resident's Name: HAROLD ~~SEEDEN~~ ^{SUNDER} Samplers: Lantz / Bhagat
 Date: 16 JUNE 1990 Sample Time: 1025
 Start Purge: 1058-110958 Est. Flow Rate: 225 gal in 25 sec
 End Purge: 1021

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1017</u>	<u>7.47</u>	<u>690 umho</u>	<u>55°F</u>
2	<u>1018</u>	<u>7.49</u>	<u>680</u>	<u>55.5</u>
3	<u>1019</u>	<u>7.49</u>	<u>680</u>	<u>55.5</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outside spigot underneath awning over back porch - SW side of house

Water Softener or other treatment? Harold does have water softener, but sample point bypasses softener

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) 2" steel casing
Well was drilled around 1950, approx 30 feet deep, sand point well. Water is approx 20-22 feet.

Other Comments: Line from well to spigot is PVC pipe. Raining outside, but sample collected under awning on back porch.

Southeast Rockford Sample Collection Sheet

Address: 3138 Lapey Sample No: _____
 Resident's Name: Pablo Reyes Samplers: Lantz / Alvarado
 Date: 6/15 Sample Time: 1715
 Start Purge: 1646 Est. Flow Rate: ± 2.5 gal in 70 sec
 End Purge: 1715

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1708</u>	<u>7.31</u>	<u>660</u>	<u>62°F</u>
2	<u>1710</u>	<u>7.31</u>	<u>670</u>	<u>60.5°F</u>
3	<u>1711</u>	<u>7.31</u>	<u>670</u>	<u>61°F</u>
4	<u>1712</u>	<u>7.30</u>	<u>670</u>	<u>61°F</u>
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outside tap on North side of house

Water Softener or other treatment? No water softener or other treatment

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

well is at least 17 years old - No other details known
2" steel casing

Other Comments: Well is outside on South side of house.

Southeast Rockford Sample Collection Sheet

Address: 3329 Capay Sample No: _____
 Resident's Name: Nancy Ure Samplers: Lantz/Rye
 Date: 6/13 Sample Time: 10:43
 Start Purge: 10:21 Est. Flow Rate: 1 gal in 46 sec.
 End Purge: 10:43

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1037</u>	<u>7.29</u>	<u>700</u>	<u>60°F</u>
2	<u>1039</u>	<u>7.25</u>	<u>700</u>	<u>60</u>
3	<u>1040</u>	<u>7.25</u>	<u>700</u>	<u>60</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

~~Send results~~
 resident will move within
 a few weeks, but
 mail should still
 be forwarded.

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: outside spigot on east side of house

Water Softener or other treatment? No Water softener or other treatment.

Aerator on sample point spigot? No.

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Resident doesn't know details of well construction

Other Comments: No other residents connected to this well.
Well is in basement

Southeast Rockford Sample Collection Sheet

Address: 2406 Lindale Road Sample No: _____

Resident's Name: Glen Thompson Samplers: Lantz/Butler

Date: 6/12/90 Tuesday Sample Time: 18:39

Start Purge: 18:16 Est. Flow Rate: 2.5 gal in 28 sec

End Purge: 18:39

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	1832	7.21	510	55.5 °F
2	1833	7.21	510	55 °F
3	1835	7.16	510	55 °F
4	1836	7.14	505	55 °F
5	1838	7.10	505	55 °F
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5 ^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: outside spigot behind western bushes on S side of house

Water Softener or other treatment? Water softener in house, but not on outside spigot

Aerator on sample point spigot? No.

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Well was drilled in 1960, ^{95'} 80' deep. ~~Asbestos~~ well pipe, 6" steel casing, water level at approx. 30 feet.

Other Comments: Sand appears on bottom of pitcher. When testing for pH, cond. + temp. lots of tiny bubbles in purge water, but none in VOC samples.

Southeast Rockford Sample Collection Sheet

Address: 2620 Lindale Dr. Sample No: _____
 Resident's Name: Madeline Jones Samplers: Lam 17 / Butler
 Date: 6/12 Sample Time: 15:16
 Start Purge: 14:58 Est. Flow Rate: 2.5 gal in 45 sec.
 End Purge: 15:16

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	15:10	7.31	520	57.5°F
2	15:12	7.32	520	57.5°F
3	15:14	7.34	520	57.5°F
4				
5				
6				
7				

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: outside
spigot behind bushes on south side of house

Water Softener or other treatment? No Water Softener or Filter

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Well drilled about 1968, 144' deep, water at 104', metal pipe

Other Comments: Well is visible in yard NE of house

Every volatile sample taken had numerous bubbles; impossible
to collect an air-bubble free sample here — Bucket of
purge water had foam on top after sitting undisturbed
for 5 min.

Southeast Rockford Sample Collection Sheet

Address: 2412 Lindberg Sample No: _____
 Resident's Name: John Woodford Samplers: Luntz/Butler
 Date: 6/12 Sample Time: 2.5 gal in 35 sec
 Start Purge: 13:56 Est. Flow Rate: 14:30
 End Purge: 14:26

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	14:17 (14:17)	7.25	460 415	56°F
2	14:19	7.23	460	55°F
3	14:20	7.23	455	55.5°F
4	14:21	7.26	455	55°F
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: spigot (outside) on SE side of house

Water Softener or other treatment? No softener or other treatment,
No filter

Aerator on sample point spigot? _____

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Well is 90 feet deep, well drilled pre-1990, well is
about 4"-6" metal pipe,

Other Comments: Purge water appears cloudy

Southeast Rockford Sample Collection Sheet

Address: Don Lundberg Sample No: _____
 Resident's Name: 2619 Lundberg Dr. Samplers: Can+2/Rys
 Date: 6/13 Sample Time: 18:00
 Start Purge: 17:37 Est. Flow Rate: 1 gal in 9 sec
 End Purge: 17:57

Stabilization Parameters:

<u>Trial</u>	<u>Time</u>	<u>pH</u>	<u>Conductivity</u>	<u>Temp.</u>
1	<u>1751</u>	<u>7.36</u>	<u>481</u>	<u>55.5</u>
2	<u>1752</u>	<u>7.37</u>	<u>475</u>	<u>54.5</u>
3	<u>1953</u>	<u>7.40</u>	<u>473</u>	<u>54.5</u>
4	<u>1758</u>	<u>7.41</u>	<u>471</u>	<u>54.5</u>
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outside Spigot on north side of house

Water Softener or other treatment? No water softener or treatment

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Well was drilled around 1960, Residents daughter doesn't know details of well construction - 6" steel casing

Other Comments: Residents well is located in under ground well house connected to shop area. All pipes leading to spigot are metal.

Southeast Rockford Sample Collection Sheet

Address: 1617 Lyron Sample No: _____
 Resident's Name: Garza Samplers: Lantz / Butler
 Date: 6/11/90 Sample Time: 16:10
 Start Purge: 15:37 Est. Flow Rate: 2.5 gal in 2:20
 End Purge: 16:10

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	4:03	6.95	720	64°F
2	4:05	6.95	730	64°F
3	4:07	6.95	720	64°F
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outside Spigot, West Side of House

Water Softener or other treatment? No water softener -

Aerator on sample point spigot? _____

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Don't know - was in when current residents moved in
Well was probably installed prior to 1950

Other Comments: Field Blank Taken here. Unusually
Slow flow rate.

Southeast Rockford Sample Collection Sheet

Address: 1701 Lyran Sample No: _____
 Resident's Name: Lowell Davidson Samplers: Lantz/Butler
 Date: 6/12/90 - Tuesday Sample Time: 10:16
 Start Purge: 09:48 Est. Flow Rate: 2.5 gal in 1 min 20 sec
 End Purge: 10:16

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>10:11</u>	<u>7.26</u>	<u>610</u>	<u>55°F</u>
2	<u>10:12</u>	<u>7.27</u>	<u>610</u>	<u>54.5°F</u>
3	<u>10:13</u>	<u>7.27</u>	<u>600</u>	<u>54.5°F</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Kitchen Sink faucet

Water Softener or other treatment? No Water Softener or treatment

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

approx 72' deep, drilled in late 50's, 6-8" metal casing
pump might be PVC

Other Comments: sampled out of faucet

Southeast Rockford Sample Collection Sheet

Address: 3106 Marshall Sample No: _____
 Resident's Name: Arnold McLain Samplers: Cante/Ros
McClain Date: 6/14 Sample Time: 9:28 30
 Start Purge: 9:08 Est. Flow Rate: 1 gal / 8 seconds
 End Purge: 9:28

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>9:22</u>	<u>7.23</u>	<u>428</u>	<u>55.5°F</u>
2	<u>9:24</u>	<u>7.24</u>	<u>425</u>	<u>55°F</u>
3	<u>9:25</u>	<u>7.26</u>	<u>425</u>	<u>55.5°F</u>
4	<u>9:26</u>	<u>7.25</u>	<u>424</u>	<u>55.5°F</u>
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outside tap on south side of house

Water Softener or other treatment? House has softener, outside tap bypasses
Water Softener

Aerator on sample point spigot? _____

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

6" steel casing, Approx. 80' deep, (80' is depth of pump)
Drilled around 1980,

Other Comments: Discharge of turbid, yellowish water when
tap was first turned on, cleared up within 1 minute
Well is visible near deck on S side of house

Southeast Rockford Sample Collection Sheet

Address: 3137 Marshall Sample No: _____
 Resident's Name: Carl Drake Samplers: Lantz / Almaraz
 Date: 6/14 Sample Time: 1717
 Start Purge: 16:56 Est. Flow Rate: 2.5 gal in 55 sec
 End Purge: 17:17

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1712</u>	<u>7.13</u>	<u>510 μmS</u>	<u>57.5°</u>
2	<u>1713</u>	<u>7.14</u>	<u>500 μmS</u>	<u>57°</u>
3	<u>1714</u>	<u>7.15</u>	<u>500 μmS</u>	<u>57°</u>
4	<u>1715</u>	<u>7.15</u>	<u>500 μmS</u>	<u>57°</u>
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outside spigot, S. side of house

Water Softener or other treatment? No water softener - small filter inside house but not in line with outside spigot

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Well was probably drilled 30-40 years ago.

Other Comments: Well is located inside basement.

Southeast Rockford Sample Collection Sheet

Address: 430 Martin Sample No: _____
 Resident's Name: Mrs Velma Beck Samplers: Butler / Mark
 Date: 6/13/90 Sample Time: 16:00
 Start Purge: 15:44 Est. Flow Rate: 1 gallon in 35 seconds
 End Purge: 15:59

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	1555	5.44	510	66°F
2	1556	5.64	500	65°F
3	1557	5.73	490	64°F
4	1559	5.81	490	64°F
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

781
64

Purge is adequate if three consecutive readings fall within these ranges:
 pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outside spigot north side of
house

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 827 Mathis Sample No: _____
 Resident's Name: Ken Barker Samplers: Robin Nicolson / Bob Hanna
 Date: 4/12/90 Sample Time: 1445
 Start Purge: 14:27 Est. Flow Rate: 1 quart at 6 seconds
 End Purge: 14:37

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1.	<u>14:38</u>	<u>7.48</u>	<u>570</u>	<u>60</u>
2	<u>14:39</u>	<u>6.99</u>	<u>580</u>	<u>60</u>
3	<u>14:41</u>	<u>6.99</u>	<u>580</u>	<u>60</u>
4	<u>14:42</u>	<u>7.00</u>	<u>580</u>	<u>60</u>
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: North side outside spigot

Water Softener or other treatment? yes but not hooked up

Aerator on sample point spigot? None

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) N/A

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 808 New Milford Ave Sample No: _____
 Resident's Name: Dan Smith Samplers: Cantz / Alvarado
 Date: 6/18 Sample Time: 1600
 Start Purge: 1543 Est. Flow Rate: 2.5 gal / 40 sec.
 End Purge: 1559

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1554</u>	<u>7.15</u>	<u>877</u>	<u>62.0°F</u>
2	<u>1555</u>	<u>7.09</u>	<u>865</u>	<u>61.3°F</u>
3	<u>1556</u>	<u>7.09</u>	<u>863</u>	<u>61.0°F</u>
4	<u>1557</u>	<u>7.09</u>	<u>860</u>	<u>60.7°F</u>
5	<u>1558</u>	<u>7.09</u>	<u>860</u>	<u>60.5°F</u>
6	<u>1559</u>	<u>7.09</u>	<u>859</u>	<u>60.5°F</u>
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Kitchen Sink

Water Softener or other treatment? No Water Softener or other treatment

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Well is probably 25 years old, 2" steel pipe + piping is all steel.

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 1726 Parsbury Sample No: _____
 Resident's Name: Elma Shirk Samplers: Lantz/Rys
 Date: 6/14 Sample Time: 1800
 Start Purge: 17:38 Est. Flow Rate: 1 gal in 30 sec
 End Purge: 17:56

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1754</u>	<u>7.12</u>	<u>540</u>	<u>52°F</u>
2	<u>1755</u>	<u>7.12</u>	<u>530</u>	<u>56</u>
3	<u>1756</u>	<u>7.12</u>	<u>538</u>	<u>55</u>
4	<u>1757</u>	<u>7.11</u>	<u>530</u>	<u>55</u>
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outside spigot east side of house

Water Softener or other treatment? No water softener or filter

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Well was drilled after residents moved here - at least since 1970.

Other Comments: Well pit is visible northeast side of house
House next door (1730) is connected to same well.

Southeast Rockford Sample Collection Sheet

Address: 801 Ranger Sample No: _____
 Resident's Name: Orval Bailey Samplers: Laird/Butler
 Date: 6/11/90 Sample Time: 7:08
 Start Purge: 186:38 Est. Flow Rate: 2.5 gallons in 40 sec
 End Purge: 7:08

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>6:58</u>	<u>6.98</u>	<u>1000</u>	<u>58°F</u>
2	<u>7:01</u>	<u>7.01</u>	<u>610</u>	<u>57.5°F</u>
3	<u>7:03</u>	<u>7.01</u>	<u>510 PMB</u>	<u>57.5°F</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Kitchen Sink - bypasses softener.

Water Softener or other treatment? Has water softener but sample point bypasses softener.

Aerator on sample point spigot? Taken off for purge & sample

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Well is 65 to 85' deep - drilled approx 10 years ago
PVC pipe goes into the well.

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 3007 River Boulevard Sample No: _____
 Resident's Name: Mrs. Simmons Samplers: Robin Norton / Scott Hodge
 Date: 6/12/90 Sample Time: 10:20
 Start Purge: 9:53 Est. Flow Rate: 1 gallon in 30 seconds
 End Purge: 10:03

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>10:09</u>	<u>7.14</u>	<u>500</u>	<u>59°F</u>
2	<u>10:11</u>	<u>7.41</u>	<u>600</u>	<u>60°F</u>
3	<u>10:14</u>	<u>7.47</u>	<u>600</u>	<u>60°F</u>
4	<u>10:16</u>	<u>7.49</u>	<u>600</u>	<u>60°F</u>
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: outside spigot on west side
of home

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Well is at least 20 years old. Well made of steel & PVC line.

Other Comments: Spigot located very close to the
ground among a bed of plants the owner calls
"Snow on the Mountains". Owner sometimes
sprays them w/ weed killer.

Southeast Rockford Sample Collection Sheet

Address: 3110 River Blvd Sample No: _____
 Resident's Name: Mr Wheeler Samplers: Horton/Butler
 Date: 6/18/90 Sample Time: 18:29
 Start Purge: 18:14 Est. Flow Rate: 1 gallon 48 seconds
 End Purge: 18:27

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>18:24</u>	<u>7.37</u>	<u>510</u>	<u>60</u>
2	<u>18:25</u>	<u>7.22</u>	<u>510</u>	<u>59</u>
3	<u>18:27</u>	<u>7.18</u>	<u>500</u>	<u>59</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outside spigot north end of
house

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) Partial
had no information

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 3117 River Sample No: _____
 Resident's Name: Fred Swanborg Samplers: Alvarez / Hodge
 Date: 6-17-90 Sample Time: 1233
 Start Purge: 1203 Est. Flow Rate: 2.5 gal / 42 sec.
 End Purge: 1232

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1226</u>	<u>7.06</u>	<u>900 μmho</u>	<u>71.4°</u>
2	<u>1228</u>	<u>7.08</u>	<u>853 μmho</u>	<u>66.8°</u>
3	<u>1229</u>	<u>7.10</u>	<u>842 μmho</u>	<u>65.5°</u>
4	<u>1230</u>	<u>7.10</u>	<u>817 μmho</u>	<u>63.9°</u>
5	<u>1231</u>	<u>7.09</u>	<u>811 μmho</u>	<u>63.1°</u>
6	<u>1232</u>	<u>7.09</u>	<u>812 μmho</u>	<u>63.5°</u>
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Spigot on N. Side of House.

Water Softener or other treatment? NONE

Aerator on sample point spigot? NO

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

25 ft Deep, ~ 1935-40,

Other Comments: Duplicate sample collected here

Southeast Rockford Sample Collection Sheet

Address: 509 Rock River Sample No: _____

Resident's Name: Alma McLeod Samplers: Lantz/Burke

Date: 6/12 Sample Time: 17:10

Start Purge: 16:50 Est. Flow Rate: 2.5 gal in 60 sec

End Purge: 17:10

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1705</u>	<u>6.65</u>	<u>810</u>	<u>58.5°F</u>
2	<u>1707</u>	<u>6.64</u>	<u>810</u>	<u>58°F</u>
3	<u>1709</u>	<u>6.61</u>	<u>810</u>	<u>58°F</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: kitchen sink

Water Softener or other treatment? No water softener or other treatment

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

well was probably drilled pre-1990. No other details known

Other Comments: well is located in basement

Southeast Rockford Sample Collection Sheet

Address: 841 Roswell Sample No: _____
 Resident's Name: Mr & Mrs Jim McKinney Samplers: Norton / Butler
 Date: 6/18/90 Sample Time: 12:29
 Start Purge: 12:16 Est. Flow Rate: 1 gallon 57 min G
 End Purge: 12:28

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1226</u>	<u>7.12</u>	<u>650</u>	<u>62.0 F</u>
2	<u>1227</u>	<u>7.23</u>	<u>650</u>	<u>60.0 F</u>
3	<u>1228</u>	<u>7.27</u>	<u>650</u>	<u>60.0 F</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outside spigot north side
of house

Water Softener or other treatment? No.

Aerator on sample point spigot? No.

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) The well
is ~ 18 yrs old & ~ 75 ft deep. Resident had no
other information.

Other Comments: Alternative for 843 Roswell
Cordit running from well cap was black
& plastic (pvc?).

Southeast Rockford Sample Collection Sheet

Address: 728 Sandy Hollow Sample No: _____
 Resident's Name: Randy Wilson Samplers: Horton / Butler
 Date: 6/15/90 Sample Time: 17:05
 Start Purge: 16:51 Est. Flow Rate: 1 gallon 33 seconds
 End Purge: 17:04

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>17:01</u>	<u>7.57</u>	<u>400</u>	<u>60</u>
2	<u>17:02</u>	<u>7.68</u>	<u>400</u>	<u>60</u>
3	<u>17:04</u>	<u>7.77</u>	<u>400</u>	<u>61</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outside Spigot West side of house

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) Resident doesn't have any information about the well.

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 810 Andy Hollow Sample No: _____
 Resident's Name: Diego Valencia Samplers: Norton/Butler
 Date: 6/18/90 Sample Time: 11:40
 Start Purge: 11:27 Est. Flow Rate: 1 gallon in 60 seconds
 End Purge: 11:39

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>11:37</u>	<u>7.68</u>	<u>410</u>	<u>65</u>
2	<u>11:38</u>	<u>7.71</u>	<u>410</u>	<u>63.5</u>
3	<u>11:39</u>	<u>7.70</u>	<u>400</u>	<u>64</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outside spigot northwest side
of house.

Water Softener or other treatment? Not know.

Aerator on sample point spigot? No.

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) Resident
didn't speak english.

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 1202 Sandy Hollow Sample No: _____
 Resident's Name: Patricia Whitefield Samplers: Lantz / Blagat
 Date: 6/17 Sample Time: 1725
 Start Purge: 1702 Est. Flow Rate: 2.5 gal in 35 sec.
 End Purge: 1722

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1717</u>	<u>7.91</u>	<u>700 μmhos</u>	<u>59°F</u>
2	<u>1718</u>	<u>7.90</u>	<u>680</u>	<u>58</u>
3	<u>1719</u>	<u>7.89</u>	<u>680</u>	<u>57</u>
4	<u>1720</u>	<u>7.89</u>	<u>670</u>	<u>57</u>
5	<u>1721</u>	<u>7.89</u>	<u>670</u>	<u>57</u>
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outside Spigot on Northwest side of House

Water Softener or other treatment? No water softener

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Resident doesn't know details of well construction.

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 1306 Sandy Hollow Sample No: _____
 Resident's Name: Jami Desoria Samplers: Notten/Burke
 Date: 6/13/90 Sample Time: 13:46
 Start Purge: 13:34 Est. Flow Rate: 1 quart in 9 seconds
 End Purge: 13:46

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>13:44</u>	<u>6.02</u>	<u>730</u>	<u>62°F</u>
2	<u>13:45</u>	<u>5.95</u>	<u>700</u>	<u>61°F</u>
3	<u>13:46</u>	<u>6.07</u>	<u>700</u>	<u>60°F</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: kitchen spigot

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: As water was being purged, a rusty coloring was noted;

Southeast Rockford Sample Collection Sheet

Address: 1812 Sandy Hollow Sample No: _____
 Resident's Name: Helen Skiloba Samplers: Jan + Z / Butler
 Date: 6/12 Sample Time: 17:54
 Start Purge: 17:35 Est. Flow Rate: 2.5 gal in 55 sec
 End Purge: 17:54

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1749</u>	<u>7.10</u>	<u>610</u>	<u>57°F</u>
2	<u>1751</u>	<u>7.12</u>	<u>605</u>	<u>56°F</u>
3	<u>1752</u>	<u>7.13</u>	<u>610</u>	<u>56°F</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: outside spigot on SW side of house

Water Softener or other treatment? No Water softener or other treatment

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

House is ~50 years old. No other details known.

Other Comments: Alternate for 1820 Sandy Hollow, which is vacant

Southeast Rockford Sample Collection Sheet

Address: 2905 Sauer Sample No: _____
 Resident's Name: Ken Teresa Boken Samplers: Bob Hank / Robin Nizari
 Date: 8/12/98 Sample Time: 15:09
 Start Purge: 14:52 Est. Flow Rate: 1 gallon in 25 seconds
 End Purge: 15:02

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>15:02</u>	<u>7.50</u>	<u>600</u>	<u>64</u>
2	<u>15:03</u>	<u>7.32</u>	<u>600</u>	<u>64</u>
3	<u>15:05</u>	<u>7.35</u>	<u>605</u>	<u>64</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outside spigot east side of house

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 93014 Sauer Sample No: _____
 Resident's Name: Gene Weeden Samplers: Lantz / Almona
 Date: 6/18 Sample Time: _____
 Start Purge: 1828 RL 1837 Est. Flow Rate: 2.5 gal in ~~300~~ RL
 End Purge: 1859 49 sec

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1855</u>	<u>7.12</u>	<u>629</u>	<u>59.0°F</u>
2	<u>1856</u>	<u>7.11</u>	<u>624</u>	<u>58.8°F</u>
3	<u>1857</u>	<u>7.11</u>	<u>623</u>	<u>58.6°F</u>
4	<u>1858</u>	<u>7.12</u>	<u>622</u>	<u>58.3°F</u>
5	<u>1859</u>	<u>7.12</u>	<u>623</u>	<u>58.3°F</u>
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outside spigot east side of house

Water Softener or other treatment? No Water Softener

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Resident doesn't know details of well construction -

Well is 6" steel casing, all pipes to faucet are steel.

Other Comments: Bluish crusty material on spigot - Brushed
off to the extent possible. Well is located in basement
Field Blank taken here.

Southeast Rockford Sample Collection Sheet

Address: 3110 Saner Sample No: _____
 Resident's Name: Kristy Whitman Samplers: Norton/Butler
 Date: 6/14/90 Sample Time: 17:10
 Start Purge: 5:57^{12N} 16:57 Est. Flow Rate: 1 quart in 10 sec
 End Purge: 17:09

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>17:07</u>	<u>4.88</u>	<u>740</u>	<u>59°F</u>
2	<u>17:08</u>	<u>4.84</u>	<u>720</u>	<u>60°F</u>
3	<u>17:09</u>	<u>4.64</u>	<u>720</u>	<u>59°F</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

58
6.01
2.9

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Outside spigot east side of
house

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 319 Sawyer Sample No: _____
 Resident's Name: Clarence Miller Samplers: Bob Hink / Peter Norton
 Date: 6/12/90 Sample Time: 17:50
 Start Purge: 17:38 Est. Flow Rate: 1 qt in 17 seconds
 End Purge: 17:50

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>17:48</u>	<u>7.46</u>	<u>625</u>	<u>61 °F</u>
2	<u>17:49</u>	<u>7.26</u>	<u>620</u>	<u>61</u>
3	<u>17:50</u>	<u>7.30</u>	<u>630</u>	<u>61</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outside spigot on south side house

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) Well is 65-70 feet deep

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 2646 Sewell Sample No: _____
 Resident's Name: Luther Jackson Samplers: Brother / Dodge
 Date: 12/19/90 Sample Time: 1:40
 Start Purge: 1:25 Est. Flow Rate: 2.5 gal in 2 min 5 sec.
 End Purge: 1:40

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1:35</u>	<u>7.12</u>	<u>797</u>	<u>63.6°F</u>
2	<u>1:36</u>	<u>7.10</u>	<u>778</u>	<u>61.3°F</u>
3	<u>1:37</u>	<u>7.11</u>	<u>764</u>	<u>60.7°F</u>
4	<u>1:38</u>	<u>7.11</u>	<u>769</u>	<u>60.5°F</u>
5	<u>1:39</u>	<u>7.11</u>	<u>767</u>	<u>60.4°F</u>
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:
 pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: in-house faucet

Water Softener or other treatment? no

Aerator on sample point spigot? no

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) about 40 ft;
well been here at least 40 years;

Other Comments: Resident says water was sampled about 3 years
ago and that they are in process of hooking him up to city
water;

Southeast Rockford Sample Collection Sheet

Address: 3135 1/2 Sewell Sample No: _____
 Resident's Name: Bill Files Samplers: Lantz Alencar
 Date: 6/15 Sample Time: 1225
 Start Purge: 12:01 Est. Flow Rate: 2.5 gal in 20 sec
 End Purge: 1221

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1216</u>	<u>7.27</u>	<u>400 μmc</u>	<u>56°</u>
2	<u>1217</u>	<u>7.31</u>	<u>400 μmc</u>	<u>56°</u>
3	<u>1219</u>	<u>7.32</u>	<u>370 μmc</u>	<u>56°</u>
4	<u>1220</u>	<u>7.32</u>	<u>390 μmc</u>	<u>56°</u>
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: spigot near crawlspace in back (west side)
of House.

Water Softener or other treatment? No water softener at this location.

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: Well is located between 3133 and 3135 Sewell,
but is used by all 3 houses. Purge water smells like sulfur.

Southeast Rockford Sample Collection Sheet

Address: 619 South Sample No: _____
 Resident's Name: Carol Latin Samplers: Robin Weston / Scott Hodge
 Date: 6/12/90 Sample Time: 11:36 am
 Start Purge: 11:19 Est. Flow Rate: 1 gallon / 57 seconds
 End Purge: 11:29

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>11:30</u>	<u>7.93</u>	<u>700</u>	<u>70</u>
2	<u>11:31</u>	<u>7.98</u>	<u>660</u>	<u>65</u>
3	<u>11:33</u>	<u>7.99</u>	<u>640</u>	<u>64</u>
4	<u>11:34</u>	<u>8.07</u>	<u>640</u>	<u>64</u>
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Fritcher spigot

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Address: 804 1st Sample No: _____
 Resident's Name: Jim Strawbridge Samplers: Horton / Butler
 Date: 6/18/06 Sample Time: 12:53
 Start Purge: 12:38 Est. Flow Rate: 1 gallon 53 min
 End Purge: 12:52

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	12:48	7.22	590	60.5
2	12:50	7.28	600	59.5
3	12:51	7.30	610	59.5
4	12:52	7.32	610	60
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outside spigot west side of house

Water Softener or other treatment? Yes, but water softener not hooked up to outdoor spigot.

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Resident has no information about the well

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Industrial Well - Estwing Manufacturing

Address: 2647 8th Sample No: _____
 Resident's Name: Paul Devers Samplers: Lantz / Almaraz
 Date: 6/18 Sample Time: 1425
 Start Purge: 1358 Est. Flow Rate: 2.5 gal in 15 sec
 End Purge: 1423

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1414</u>	<u>7.80</u>	<u>929</u>	<u>63.8°F</u>
2	<u>1415</u>	<u>7.01</u>	<u>925</u>	<u>62.7°F</u>
3	<u>1416</u>	<u>7.02</u>	<u>917</u>	<u>61.8°F</u>
4	<u>1417</u>	<u>7.02</u>	<u>914</u>	<u>61.8°F</u>
5	<u>1418</u>	<u>7.02</u>	<u>913</u>	<u>61.6°F</u>
6	<u>1419</u>	<u>7.02</u>	<u>914</u>	<u>61.5°F</u>
7	<u>1420</u>	<u>7.02</u>	<u>913</u>	<u>61.1°F</u>

Temp measurements
 altered by
 proximity to
 heat treatment
 machinery.

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Tap near middle of west side of plant.
Right next to well

Water Softener or other treatment? No water treatment

Aerator on sample point spigot? No water softener - water is not for potable use

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Well is 82' deep - drilled in 1940's, pumps approx. 1500 gal
per day. 8" steel casing - water is at 40'

Other Comments: Water is process water - cooling & quenching
Estwing makes hammers

Southeast Rockford Sample Collection Sheet

Rockford Cylinder Gas

Address: 2613 11th Sample No: _____

Resident's Name: Dennis Henderson Samplers: Conte / Alvarado

Date: 6/19 Sample Time: 1215

Start Purge: 1137 Est. Flow Rate: 1 liter in 30 sec - see
fu

End Purge: 1212 1 liter in 25 sec - 2nd
fau

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1201</u>	<u>7.70 7.07</u>	<u>975</u>	<u>66.9°F</u>
2	<u>1204</u>	<u>7.08</u>	<u>967</u>	<u>66.6°F</u>
3	<u>1205</u>	<u>7.08</u>	<u>964</u>	<u>66.4°F</u>
4	<u>1206</u>	<u>7.09</u>	<u>962</u>	<u>66.3°F</u>
5	<u>1206</u>	<u>7.09</u>	<u>963</u>	<u>66.4°F</u>
6	<u>1210</u>	<u>7.09</u>	<u>980</u>	<u>66.4°F</u>
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Faucet in Woman's Bathroom

Water Softener or other treatment? No water softener or other treatment

Aerator on sample point spigot? _____

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Employee doesn't know details of well construction

Other Comments: Purge through 2 bathroom faucets

Southeast Rockford Sample Collection Sheet

Address: Tussing Tile & Flooring
2955 11th Sample No: _____
 Resident's Name: Chris Schaaf Samplers: Lantz / Butler
 Date: 6/11/90 Sample Time: 17:34
 Start Purge: 17:00 Est. Flow Rate: 3202 in 10 sec.
 End Purge: 5/17:34

Stabilization Parameters:

<u>Trial</u>	<u>Time</u>	<u>pH</u>	<u>Conductivity</u>	<u>Temp.</u>
1	<u>17:22</u>	<u>7.01</u>	<u>730</u>	<u>58°F</u>
2	<u>17:29</u>	<u>6.95</u>	<u>750</u>	<u>59°F</u>
3	<u>17:33</u>	<u>7.00</u>	<u>730</u>	<u>59°F</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Sample taken from sample spigot right outside
~ 35 gal pressure tank.

Water Softener or other treatment? No filters, water softeners, etc.

Aerator on sample point spigot? _____

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: Well is in basement - well purged by running
upstairs bathroom sink full force. Location is a
commercial establishment that sells floor tiling. Well
runs on periodically. Matrix Spike Duplicate taken here.
Samples collected from brass faucet. *Purge measured here

Southeast Rockford Sample Collection Sheet

Smith Auto Repair

Address: 3015 11th Sample No: _____

Resident's Name: Burdette Smith Samplers: Lantz / Butler

Date: 6/12/90 Sample Time: 2.5 gal in 1 min 20 sec.

Start Purge: 10:51 Est. Flow Rate: 11.27

End Purge: 11:27

Stabilization Parameters:

<u>Trial</u>	<u>Time</u>	<u>pH</u>	<u>Conductivity</u>	<u>Temp.</u>
1	<u>11:18</u>	<u>7.26</u>	<u>610</u>	<u>58.5° F</u>
2	<u>11:19</u>	<u>7.26</u>	<u>610</u>	<u>58.6° F</u>
3	<u>11:20</u>	<u>7.28</u>	<u>610</u>	<u>58° F</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Sink on southeast side of shop.

Water Softener or other treatment? No water softener or other treatment

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

30-35' deep, 2" metal pipe - poured well himself

Other Comments: House next door - 3017 S. 11th is on same well,

House is vacant now. Field Blank taken here.

Shop smells like hydraulic fluid - doesn't smell of gasoline or solvents.

Southeast Rockford Sample Collection Sheet

Goodyear Tire Co.

Address: 3119 11th St. Sample No: _____

Resident's Name: Bill Czerny - Mgr Samplers: Linn / Butler

Date: 6/12/90 Sample Time: 12:33

Start Purge: 12:09 Est. Flow Rate: 2.5 gallons in 19 sec

End Purge: 12:33

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>12:26</u>	<u>7.32</u>	<u>420</u>	<u>57°F</u>
2	<u>12:29</u>	<u>7.33</u>	<u>420</u>	<u>56.5°F</u>
3	<u>12:31</u>	<u>7.33</u>	<u>420</u>	<u>56.5°F</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: Outside Brass Spigot on NW corner of
bldey.

Water Softener or other treatment? No treatment, No Water Softener

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Well is approx 4 years old - Shop Mgr doesn't know
details of well construction

Other Comments: Shop smells like tires, sample point
is next to 3 anti freeze drums - Not leaking, no odors

* All of small, black particles were noted in water -
No municipal water

Southeast Rockford Sample Collection Sheet

Address: McDonalds, 3237 11th Sample No: _____
 Resident's Name: Dave Stenberg Samplers: Lantz/Almamp
 Date: 6/14 Sample Time: 1545
 Start Purge: 5 Est. Flow Rate: 2.5 gal in 13 sec
 End Purge: 1531 END 1545

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1541</u>	<u>7.22</u>	<u>560</u>	<u>56°F</u>
2	<u>1543</u>	<u>7.28</u>	<u>560</u>	<u>55.5°F</u>
3	<u>1544</u>	<u>7.28</u>	<u>560</u>	<u>55°</u>
4	<u>1545</u>	<u>7.28</u>	<u>560</u>	<u>55°</u>
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Back Stainless Steel Sink

Water Softener or other treatment? No Water Softener or treatment

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Restaurant manager doesn't know details of well.

Other Comments: _____

Southeast Rockford Sample Collection Sheet

Pizza Hut

Address: 3329 11th Sample No: _____

Resident's Name: Jan Hevsey Samplers: Lantz / Alvarado

Date: 6/14 Sample Time: 1615

Start Purge: 15:57 Est. Flow Rate: 2.5 gal in 21 sec.

End Purge: 1609

Stabilization Parameters:

<u>Trial</u>	<u>Time</u>	<u>pH</u>	<u>Conductivity</u>	<u>Temp.</u>
1	<u>1604</u>	<u>7.09</u>	<u>600</u>	<u>57°F</u>
2	<u>1605</u>	<u>7.09</u>	<u>600</u>	<u>56°F</u>
3	<u>1606</u>	<u>7.09</u>	<u>600</u>	<u>56°F</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Spigot in wood shed on north side of bldg

Water Softener or other treatment? yes, but sample point bypasses softener.

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Manager doesn't know well construction details

Other Comments: Tested softened water - conductivity = 700 μmhos .
out of hose conductivity = 610 μmhos . sample
collected directly from faucet spigot. RL

Southeast Rockford Sample Collection Sheet

East Rockford Collision Center

Address: 2602 S. 17th St Sample No: _____

Resident's Name: Russell Vanoula Samplers: Lantz/Rys

Date: 6/13 Sample Time: 10:02

Start Purge: 9:26 Est. Flow Rate: 2.5 gal in 35 sec.

End Purge: 10:02 2 faucets running at the rate.

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>0942</u>	<u>7.10</u>	<u>61.0</u>	<u>57°F</u>
2 (L)	<u>0945</u>	<u>7.24</u>	<u>58.1</u>	<u>55°F</u>
3 (L)	<u>0948</u>	<u>7.26</u>	<u>58.1</u>	<u>55°F</u>
4 (R)	<u>0951</u>	<u>7.20</u>	<u>58.1</u>	<u>55°F</u>
5 (L)	<u>0955</u>	<u>7.29</u>	<u>60</u>	<u>56°F</u>
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Sinks in bathroom on ^{East Center} ~~Northwest~~ side of Shop

Water Softener or other treatment? No water softener or other treatment

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Well is probably 90 feet deep, drilled pre-1965
6" metal casing

Other Comments: Workers drink bottled water

Strong solvent smell in shop area

Field Blank taken here

Southeast Rockford Sample Collection Sheet

Address: 2944 Biddle - Mun. Well #35 Sample No: _____

Resident's Name: John Crooks Samplers: Biddle/Hodge

Date: 6/19/90 Sample Time: 10:28

Start Purge: ~~12:26~~ - Est. Flow Rate: _____

End Purge: _____

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>10:29</u>	<u>7.02</u>	<u>647</u>	<u>60.7°F</u>
2	<u>10:30</u>	<u>7.17</u>	<u>625</u>	<u>58.7°F</u>
3	<u>10:31</u>	<u>7.20</u>	<u>622</u>	<u>58.2°F</u>
4	<u>10:31</u>	<u>7.20</u>	<u>620</u>	<u>57.8°F</u>
5	<u>10:32</u>	<u>7.20</u>	<u>615</u>	<u>58.0°F</u>
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = ± 50 μ mhos/cm, and temp. = ± 0.5 °C (± 2 °F).

Comments:

Location of sample point: South end of playground -

Water Softener or other treatment? No -

Aerator on sample point spigot? No -

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) industrial well; shallow well (214 ft. finished in limestone; stainless steel screen) 2,450 gpm; drilled 1971; ceased phosphate injection 9-89

Other Comments: call Mike Salzone before 3:30 for further info -
In past, had injected phosphate into well; find out many
gallons pumped per day to reduce oxidizing time
didn't need to purge because no holding tank - water
coming straight from well.

(BIS)
785-
1269

Southeast Rockford Sample Collection Sheet

Kincadee Service

Address: 1101 Brooke Sample No: _____
 Resident's Name: Robert McCurcheon Samplers: Cantz/Almanza
 Date: 6/18 Sample Time: 1650
 Start Purge: 1624 Est. Flow Rate: 2.5 gal in 45 sec
 End Purge: 1649

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1643</u>	<u>7.00</u>	<u>539</u>	<u>60.4°F</u>
2	<u>1644</u>	<u>7.08</u>	<u>530</u>	<u>59.2°F</u>
3	<u>1645</u>	<u>7.09</u>	<u>527</u>	<u>58.8°F</u>
4	<u>1646</u>	<u>7.10</u>	<u>526</u>	<u>58.7°F</u>
5	<u>1647</u>	<u>7.10</u>	<u>526</u>	<u>58.7°F</u>
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Inside tap on east side of garage

Water Softener or other treatment? No Water Softener

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Manager doesn't know details of well construction

Other Comments: Well is located in empty lot south of
Station

Southeast Rockford Sample Collection Sheet

Corcoran's Paly Shop
 Address: 3109 Collins Sample No: _____
 Resident's Name: Dave Corcoran Samplers: Iantzi/ Bhagat
 Date: 6/15 Sample Time: 1135
 Start Purge: 1113 Est. Flow Rate: 2.5 gal in 13 sec
 End Purge: 1134 (outside hose)

Stabilization Parameters:

<u>Trial</u>	<u>Time</u>	<u>pH</u>	<u>Conductivity</u>	<u>Temp.</u>
1	<u>1130</u>	<u>7.43</u>	<u>495 umho</u>	<u>57°F</u>
2	<u>1131</u>	<u>7.43</u>	<u>495</u>	<u>57</u>
3	<u>1132</u>	<u>7.44</u>	<u>491</u>	<u>57</u>
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:
 pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Bathroom sink in shop area

Water Softener or other treatment? No water softener in house, but
bathroom sink in the shop area bypasses softener.

Aerator on sample point spigot? NO

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Well is 90 feet, 5" steel casing - well is riser pipe is 2" PVC
well was drilled approx 1985, depth to water = 50-60 feet.

Other Comments: sampled inside because of heavy rain
Ran both bathroom sink and outside faucet to get
adequate purge. Sink purge rate = 1 liter in 10 sec.

Industrial Well

Southeast Rockford Sample Collection Sheet

Commonwealth Edison

Address: 123 Energy Drive Sample No: _____

Resident's Name: Craig Reed Samplers: Lantz / Almaraz

Date: 6-14-90 Sample Time: 14:45

Start Purge: 10:20 Est. Flow Rate: 2 x 2.5 gal in 40 sec

End Purge: 14:42

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	<u>1437</u>	<u>7.35</u>	<u>590 μmoh</u>	<u>58°</u>
2	<u>1438</u>	<u>7.33</u>	<u>590 μmoh</u>	<u>57°</u>
3	<u>1439</u>	<u>7.31</u>	<u>590 μmoh</u>	<u>57°</u>
4	<u>1440</u>	<u>7.30</u>	<u>590 μmoh</u>	<u>57°</u>
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Bathroom Sink in Peaker's Maintenance Bldg

Water Softener or other treatment? No treatment

Aerator on sample point spigot? No - removed

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Other Comments: well is located ~~near~~ behind building SE of bend
in road running near the two huge diesel tanks
send results to Craig Reed

Commonwealth Edison

123 Energy Dr.

Rockford IL 60109

Industrial
Well

Southeast Rockford Sample Collection Sheet

Address: 707 HARRISON

Sample No: _____

Resident's Name: ROCKFORD PRODUCTS

Samplers: LANTZ/BHAGAT

Date: 6-19-90

Ray ROY MORRIS

Sample Time: 1420 - 1440

Start Purge: Purged 11 gallons

Est. Flow Rate: _____

End Purge: _____

Well pumped continuously
Well pumps 24 hrs/day on a
60 sec on 60 sec off
cycle.

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.	
1	1408	7.30	710 µmhos	57°F	7 gal
2	1411	7.15	700	57.5	8
3	1414	7.33	700	57	10
4	1417	7.35	710	57	11
5	_____	_____	_____	_____	_____
6	_____	_____	_____	_____	_____
7	_____	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: No 2 well in Heat treatment Area.

Water Softener or other treatment? None

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) _____

Well screened at 150-180 feet, pumps 750 gpm continuously
8" diameter steel casing

Other Comments: Field Blank + Duplicate taken here.

Lots of oil & grease in vicinity of sample point.

Southeast Rockford Sample Collection Sheet

Address: Rock Farm Recreation District
3333 Ridgeway Sample No: _____
 Resident's Name: Mr. Richard Eick Samplers: Horan / Butler
 Date: 6/12/90 Sample Time: 14:26
 Start Purge: 14:14 Est. Flow Rate: pump rate = 1000 gals
 End Purge: 14:26 per second.
sample rate = 60 / gals
in 65 seconds

Stabilization Parameters:

Trial	Time	pH	Conductivity	Temp.
1	14:24	7.31	400	60
2	14:25	7.24	590	60
3	14:26	7.21	590	59
4	_____	_____	_____	_____
5	_____	_____	_____	_____
6	_____	_____	_____	_____
7	_____	_____	_____	_____

Purge is adequate if three consecutive readings fall within these ranges:

pH = ± 0.25 , conductivity = $\pm 50 \mu\text{mhos/cm}$, and temp. = $\pm 0.5^\circ\text{C}$ ($\pm 2^\circ\text{F}$).

Comments:

Location of sample point: Industrial well #2 - pump house

Water Softener or other treatment? No

Aerator on sample point spigot? No

Well Construction: (depth, PVC, stainless, date drilled, static water level, etc.) 215 ft deep
below ^{surface} ground; 15 yrs old; static water level 16 ft below
surface; draw down is 12 feet

Other Comments: They have 2 dewatering wells & 2 potable
water wells. We sampled well #2

APPENDIX B
FIELD NOTEBOOKS

SOUTHEAST ROCKFORD

FIELD NOTEBOOK #1

JUNE 1990

SE Rockford Project
Sample Team 1

INDEX

Trailer # 399-8303

Property of Rik Lantz
Camp Dresser & McKee
Address 200 W. Adams St 1600
Chicago IL 60606
Telephone (312) 786-1313

Project # 1681

This Book is manufactured of a High Grade
50% Rag Ledger Paper having a Water Resist-
ant Surface, and is sewed with Nylon Water-
proof Thread.

6/11/90 Monday

9:00 Arrive at Traylor, set up
1:00 Calibrate pH & Conductivity meters
Conductivity meter used by Sample
Team 1 calibrated at 8750 μ mhos
in 10,000 μ mho solution.

1:55 1735 Hamilton

- Purge begins 13:50
- Sample Location
 - SE corner of house
 - outside spigot

2:25 1735 Hamilton Sample collected.

2:35 Arrive at 1737 Johnson

- 2:35 - Begin purge
- Sample location - SW corner of house
- outside spigot
- duplicate will be collected here -
- 2:52 end purge

3:05 Sample collected at 1737 Johnson

3:45 Preparing to take sample and
Field blank at 1617 Lyman.

16:50 Arrive at 508 Rock River Ave.
 17:15 508 Rock River Sample collected.
~~17:54 End Purge RL~~
 17:30 Arrive at 1812 Sandy Hollow
 17:35 Begin Purge
 17:54 End Purge
 18:00 Sample 1812 sandy Hollow collected.
 18:05 stopped at 2619 Lindberg - Not Home
 18:10 Arrive at 2406 Lindale
 18:16 Begin Purge
 18:39 End Purge, receive advice
 regarding squirrels
 18:50 Leave 2406 Lindale, sample collected
 Lots of small bubbles in purge
 water, but none in VOC samples.
 19:00 Stopped at 3141 S 17th - Harold
 Couch says well was recently
 hit by lightning and well pump
 was replaced on Saturday, so
 did not take sample.
 19:10 3 samples in cooler for night
 319 Sawyer, 2406 Lindale,
 1812 Sandy Hollow - All 3 metals
 samples preserved. Cooler
 sealed with caustic seal.

Number 6527.

19:30 Leave Train for Hotel

~~M. Fox
 96/12/90~~

6/13/90 Wed.

8:00 Meter 00928 calibrates at 970
in 1000 ml/hr/cm fluid.

8:15 Break custody sent on cooler
containing 3 samples from last
night.

09:17 1st stop: Church of God at
suspected location: 2622 S. 19th
No one here - will have to
come back on Sunday?

09:25 2nd stop 2602 S. 17th at E. Rickard
Collision Center. Spoke w/ Russ
VERONA (owner)

- Sample point: bathroom sink
on north east

- No H₂O filter or softener

- using bottled water

- purge rate: 35 cc / 2.5 gal

start purge: 09:28 am

10:02 End Purge

10:10 Sample 2602 17th Sr. collected.

10:15 Field Blank at 2602 17th collected.

10:31 Stopped at 2713 20th: Vacant
AND OVER - Ry

10:35 Arrived at 3109 20th

start purge: 10:34

10:55 End Purge

11:00 Sample 3109 20th collected.

11:34 ARRIVED AT 2315 HARRISON

11:36 START PURGE (Victory Tap)

11:45 Duplicate Sample taken at 2315 HAR

11:57 End purge

12:00 Sampled well at 2315 Harrison.
+ Duplicate.

12:15 Stopped at 3110 S. 18th.
No one home.

12:20 Stopped at 3120 17th

12:22 START purge 12:40 End Purge

12:32 Talked with owner.

12:45 Sample collected at 3120 S 17th
just prior to start of Thunderstorm

14:00 Stopped at 2619 LINDBERG no one
home!

14:20 Arrive at 3102 16th

14:22 Begin Purge

14:41 End Purge

14:45 Sample 3102 16th Sr. collected.

14:50 Arrive at 3122 16th Sr.

14:56 Start Purge.

15:11 Purge interrupted & STARTED AT
15:11

6/13/90 Mon
 1524 END PARGE
 1608 STOPPED AT 2801 COLLINS
 1608 STARTED PARGE
 1626 END PARGE
 1632 SAMPLE COLLECTED ALONG W/
 MATRIX SPIKE DUPLICATE
 1645 ARRIVED 3245 COLLINS
 TALKED TO OWNER: John Bratton
 1649 START PARGE
 1709 END PARGE.
 1718 SAMPLE 3245 COLLINS COLLECTED
 1730 STOPPED AT 2619 LINDBERG - NOT HOME
 1738 ARRIVED AT 2619
 1737 STARTED PARGE
 1757 END PARGE.
 Resident's daughter arrived as we
 were pulling out.
 1805 ARRIVE AT 3110 18th
 1810 BEGIN PARGE - WILL COLLECT FIELD
 BLANK HERE.
 1831 END PARGE
 1831 SAMPLING HELL FROM SPIGOT
 1842 WATER WAS ~~turning~~ bubbly
 1845 SAMPLE 3110 18th COLLECTED,
 RETURN TO TRAILER.

1915 SAMPLES 3245 COLLINS, 2810 8th,
 3110 18th, 3110 18th FIELD BLANK,
 3110 10th, 3110 10th DEEP, 2619
 LINDBERG. SEALED IN COOLER.
 CUSTODY SEAL NUMBER 6531.
 1925 PACK UP AND LEAVE ~~TRAILER~~
 TRAILER. THANK YOU.

~~THH/THH~~
 6/13/90

6/14/90

- 8:00 Arrive at trailer, Scott H is
calibrating instruments.
- 8:10 Break custody seal on cooler.
Virginia Wood witnesses.
- 8:30 00928 calibration 950 in
1000 umho calibration. Hand.
pH meter calibrated ok.
- 9:00 Stopped at 3135 HORRAN: residence.
says well is on same same system.
as 3131 & 3133! NOT SAMPLED
- 9:01 Stopped at 3125 Marshall
DID NOT ALLOW ACCESS TO WELL,
said well was checked previously
& WAS NOT INTERESTED IN having it
sampled
- 9:05 3106 Marshall
- 9:07 ~~start purge~~ (Faucet faucet)
- 9:08 START purge
- 9:28 End Purge. Switched faucet's because
back faucet was closer to well.
- 9:30 Sample taken (3106 Marshall)
- 9:39 3134 Sewell: stopped & NO
adult present - will return to
later time
- 9:43 1737 Penning: stopped but no one

6/14/90

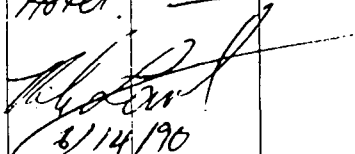
with home

- 9:46: stopped at 1726 Penning & no one
was home
- 9:52 stopped at 3215 11th & no such
number ex 1575.
- 10:12 stopped at McDonald's assigned to
3215 & talked w/ Steve mgr.
& will return to sample at later
time.
- 10:13: stopped at 3329 Green Hair: mgr. was
out so will return at later
time
- 10:18: stopped by 3329 Lapey
- 10:21: START purge
- 10:35: END PURGE & SAMPLED 3329 Lapey
- 11:00 Return to trailer
- 11:14: Arrived at 3230 Lapey, talked w/
owner Russel Brown
- 11:19 START purge
- 11:30 EXTRACTED Field Blanks
- 11:41 Sample 3230 Lapey Collected.
Field Blank also collected at
3230 Lapey.
- 11:50 Stopped at 3213 Lapey - Not Home.

11:55 stopped at 3137 Lapey, water
 main valve outed. I think I have
 so went across to 3138 Lapey
 and no one home - went to 3134
 Lapey & once again no one is
 home!!
 12:04 stopped @ 3013 Lapey no one
 home!
 12:10 stopped @ 2826 10th & no one
 home!!!
 12:10-12:40 Made address map.
 13:50 Arrive at Comm Ed to take
 Industrial Well sample.
 Spoke w. James Freeman
 14:20 Start Purge
 14:42 End Purge
 14:45 Comm Ed - 123 Energy Dr.
 sample collected.
 14:55 stopped at 2800 Fabius
 Sheldon Trucking. Couldn't verify
 that sample point by passed
 softener, so tested conductivity
 of water known to be softened -
 1100 umhos - same as purge
 water from Sprigot which is

supposed to bypass softener.
 Because of doubt, no sample
 taken.
 15:30 Arrive at McDonald's - 3237 11th
 15:31 Begin Purge
 15:41 End Purge
 15:45 Sample collected 3237 11th
 15:50 Arrive at Pizza Hut - 3327 11th
 15:51 Begin Purge - Question about
 water softener bypass - will test
 with conductivity meters on at
 last one.
 16:09 End Purge
 16:15 Sample 3327 11th collected,
 Return to trailer.
 16:40 Arrive at 3137 Marshall
 16:43 Start Purge -
 16:44 No water - check faucet in basement.
 16:58 Start Purge again.
 17:17 End Purge
 17:20 Sample 3137 Marshall collected.
 17:33 stopped at 3137 Small & no one home
 17:38: Start purge at 1726 Pawling.
 17:56: End purge.

1800 Sampled well 1726 Pershing
 1811 Stopped at 3139 Sweet S.W.
 1814 Stopped at 1637 Pershing
 1814 Start purge
 1837 End Purge
 1840 Sample 1637 Pershing
 19:15 Samples 1776 Pershing, 1637
 Pershing, 3110 Sweet, 3137 Marshall
 1317 Brooke, 2624 5th, 3115 7th
 3237 11th, 1202 Brooke, 3329
 11th sealed in cooler - custody
 seal 6538.
 1975 Leave cooler & trailer
 for Hotel.


 8/14/90

8/15/90 Friday
 8:00 Arrive at trailer, break seal
 on cooler with last night's samples
 go over samples.
 8:30 Calibrating meter - Conductivity meter
 00928 calibrates at 810 umhos in
 1000 umho fluid
 9:00 Leave to make address map.
 9:15 Arrive at 3129 Horton
 9:18 Begin Purge. Will collect day
 here
 9:42 End Purge
 11:50 Sample 3129 Horton + Day collected?
 Note: Because of position of faucet,
 we could only fill initial bottles
 1/2 full, so we used a third initial
 bottle and to fill the remainder 1/2
 remainder. 3rd bottle was then
 discarded.
 12:00 Stopped at 3137 Sweet. yet again
 parents are not home. Went next
 door to 3135 1/2 Sweet
 12:01 Began purge.
 12:04 End Purge
 12:30 Sample 3135 1/2 Sweet collected,
 Head back to Trailer.

1:00 Lunch
 1:50 Arrive 3213 Lapey
 1:57 Start purge.
 2:10 Field Blank collected at 3213 Lapey
 14:20 End Purge
 14:25 Collected Sample 3213 Lapey
 14:40 stopped at 3137 Lapey - Not Home
 14:45 stopped at 3101 Lapey - Not Home
 14:50 stopped at 3013 Lapey - Not Home
 14:55 stopped Arrive at 1713 Harrison -
 Begin Purge
 15:20 End Purge.
 15:25 Sample 1713 Harrison Collected
 15:50 stopped at 1817 Harrison - Not Home
 16:00 Worker at 2607 Marshall says
 site used to be a dump for
 Foundry & other local industries
 16:10 Ashed up and down 2600
 block of Sewell and Marshall -
 No water wells on this block.
 16:15 stopped at 2406 2646 Sewell -
 Luther Jackson says well doesn't
 work - will try again later ~~not~~
 next week after he has a chance
 to get a plumber to fix the
 well.

14:30 stopped at 2703 20th for appointment.
 Not Home
 14:35 stopped at 3101 Lapey - Not Home
 14:40 stopped at 3137 Lapey - New resident
 says that they have lived up
 to city water.
 14:45 stopped 3138 Lapey
 14:46 Begin purge.
 17:13 End Purge
 17:15 Sample 3138 Lapey collected
 17:40 Closed Cooler with samples
 from 728 sandy hollow and
 3138 Lapey (Muddy sand)
 Number 6545

6-15-90
 Craig Arney

6/16

- 8:00 Arrive at Harbor, beach carwash, seat on cooler with yesterday's samples.
- 8:30 Calibrate conductivity meter. 00928 - 8500 umhos in 10,000 calibration fluid.
- 9:30 Stopped at 2622 19th - Church of God - Not Home
- 9:35 Stopped at 2703 20th - Not Home
- 9:40 Steady rain since 8:00
- 9:45 Stopped at 1817 Harrison. Not home.
- 9:50 Stopped at 2635 10th St on city water.
- 9:52 Stopped at 2626 10th St. Not home.
- 9:55 Stopped at 3101 Lapey
- 9:58 Begin purge
- 10:21 End purge
- 10:25 Sample 3101 Lapey collected.
- 10:55 Stopped at 3102 9th - Not Home
- 11:00 Stopped at 3101 9th - Not Home.
- 11:05 Stopped at 2927 9th - City water
- 11:10 Stopped at 2910 9th - Already sampled but not marked as up

- 11:10 Arrive at 3109 Collins - Carwash Auto Body.
- 11:13 Begin purge.
- 11:34 End purge.
- 11:35 Sample 3109 Collins collected.
- 11:45 Arrive 3126 Collins
- 11:53 Start purge
- 12:13 End purge.
- 12:15 Sample 3126 Collins collected.
- 12:40 Lunch.
- 13:30 Stopped at 2703 20th - Not Home. Still raining steadily.
- 13:40 Stopped at assembly of God church. No one here 2622 19th.
- 13:45 Stopped at 1817 Harrison - Not Home
- 14:05 Stopped at 3138 8th - Not Home.
- 14:10 Arrive at 3122 Bildahl
- 14:15 Begin purge - Drip will be taken, leave
- 14:36 End purge
- 14:45 Sample 3122 Bildahl + Drip. Collected here
- 15:00 Arrive at 3206 Bildahl.
- 15:05 Begin SB
- 15:05 Begin purge
- 15:26 End purge
- 15:30 Sample 3206 B SB

1530 Sample 3206 Bildahl and Matrix
Spike taken.

1545 Return to trailer for sample
packaging

1645 Leave trailer for Hotel(s).

~~Field blank~~
6/16/90

6/17/90 Sunday

8:30 Arrive at trailer, discuss days
activities.

9:00 Begin making address map.

11:10 Return to trailer, calibrate
instruments. Conductivity meter
00928 reads 4800 in 1000 umho
calibration fluid. pH meter OK.

11:30 Stop at 1817 Harrison - Not home

11:35 Stopped at 2703 20th - Not home

11:50 Stopped at 3102 4th St. - Not Home

11:55 Stopped at 3101 9th.

11:57 Begin purge.

1223 End purge

1225 Sample 3101 9th collected

1240 Stopped at 2622 S 19th - Not home.

1250 Stopped at 2009 9th St. - Resident
claims they are on city water

1255 Arrive at 3022 8th

1258 Begin purge

1323 End purge

1325 Sample 3022 8th collected

1400 Lunch

1445 Arrive at 3138 8th

1446 Begin purge

1500 Field blank taken at 3138 8th.

End Purge 1512
 1515 Sample 3138 8th Collected.
 1525 Arrive at 3109 8th.
 1526 Begin purge.
 1551 End purge.
 1555 Sample 3109 8th taken
 1603 Arrive at 2703 20th.
 1605 Begin purge
 1626 End purge.
 1630 Sample 2703 20th collected.
 1700 Arrive at 1202 Sandy Hollow
 1702 Start Purge
 1722 End Purge
 1725 Sample 1202 Sandy Hollow collected
 1740 Stopped at Church of God -
 ON City Water according to pastor
 1745 Stop at 1817 Harrison - Not Home
 1805 Return to trailer.
 1815 Samples 1202 Sandy Hollow,
 3101 9th, 3107 Grant Park Blvd,
 3022 8th, (~~3109 9th~~), 110 Brooke,
 3117 River Blvd. + Dip, 2703 20th,
 3138 8th, + Field Blank sealed
 in two coolers with lots of
 ice. Custody seal's 6554

6555 used to seal coolers.
 1820 Correction: 3109 9th should be
 3101 9th. Break custody seal
 on cooler to make sure bottles
 are labeled properly - They are.
 Reseal with custody seal 6556.
 1825 Leave for night.

H. Law
 6/12/90

6/18/90

800 Break custody seal on two sample coolers. Calibrate instruments. Conductivity meter 00928 reads 900 umhos in 1000 calibration fluid. Note: Sample cooler for organics also contained Trip Blank, but blank was not labeled. pH meter calibrated.

850 Begin making address map
1030 Stop at 2613 #11th - Employees don't know where well is - will stop back

1050 Stop at 1817 Harrison - Not home again - will take sample.

1053 Begin purge

1118 End Purge

1125 Sample 1817 Harrison + Matrix Syms Sample taken here.

1135 Arrive at 2613 11th.

1137 Begin purge

1212 End Purge

Problems with stabilization, but readings fall within prescribed ranges, so will take sample.

1215 Sample 2613 11th collected.

1300 Arrive at Estwing, meet with Paul Devers

1358 Begin Purge

1423 End Purge

1425 Sample collected. Sample was collected right next to heat treatment machinery - May have caused difficulty with temperature stabilization. 2647 8th - Industrial Well.

1515 Stopped at 1001 Harrison - on city water

1525 Stopped at 2713 Kishwaukee - Pigeon Club - Not Home, but neighbor has well.

1540 Arrive at 608 New Milford

1543 Begin purge

1559 End Purge

1600 Sample 608 New Milford.

1615 Stopped at B&H Auto 2929 8th, Facility at 914 Brode has no well, but we could get a sample at 2929 8th

1620 Stop at Kincaid's Service at 1101 Brode.

- 1624 Begin Purge
 1649 End Purge
 1650 Sample 1101 Brodie collected?
 1700 Return to trailer, discuss sample points.
 1745 Stop at 2624 9th - No such number
 1800 Stop at 3007 7th City Water
 3012 7th - City Water, 3008 7th not home, but neighbor at 3010 says they're on City water
 1815 Stopped at 3330 7th - Not Home
 1820 Stopped at 3011 Sauer - Not Home
 Across street at 3014 Sauer they have well so we will take sample
 1828 Begin Purge - Will take field blank here
 1837 Begin Purge again - Hose was kinked.
 1845 Field Blank collected @ 3014 Sauer
 1859 End Purge
 1900 Collect 3014 Sauer
 1915 Stopped at 805 Barnum - City Water
 1920 Stopped at 3037 Kishwaukee - Check water softener bypass -

Plumbing looks like outside spigot can bypass water softener with shutoff valve - Check TDS (conductivity) of tap water vs. outside spigot. Tap water is higher by 150 umhos, so OK to sample.

- 1925 Begin purge.
 1950 End Purge
 1955 Sample 3037 Kishwaukee collected
 2010 Samples 3014 Sauer + Field Blank, 3037 Kishwaukee, 3110 River Bluff 621 Cannon, 1101 Brooke, 608 New Milford sealed in cooler. Custody Seal 13272.

2025 Leave trailer for day.

Thy. Dent

6/18/90

6/19/90 Tues

- 800 Arrive at trailer - Custody seal on cooler intact.
- 825 Begin Address Maps.
- 945 Return to trailer - Calibrate instruments for Municipal Well samples. Pam & Robin will sample.
- 1000 Prepare to discuss sampling points w. Dave.
- 1130 Dave Dollius arrives at trailer. Discuss 39 points where we do not have samples yet.
- 1215 Leave trailer for lunch.
- 1300 Return to trailer.
- 1325 Arrive at Rockford Products.
- 1345 Arrive at site of pump - No way to purge sample point - can't discharge water, and any hose would be in pathway of 40k lbs. will purge several buckets. Pump runs continuously 24 hrs per day 7 days per week. Address - 707 Harrison. Flow rate on pump is 750 gal/minute according to Ray Morris, plant facility manager. Will take field

Blank here.

- 1350 Field Blank taken at 707 Harrison.
- 1420-1440 Collected Rockford Products (707 Harrison) + Deep. Lots of difficulties - couldn't purge via hose, so purged 11 gals with bucket. Lots of tiny bubbles in water - couldn't get VOC sample without bubbles - too much back pressure. Small bubbles in all VOCs (total of 8 VOC bottles) Well is situated next to heat treat area, so very hot. Lots of oil & grease around sample spigot and immediate area. Changed gloves often.
- 1452 Arrive at 2717 20th - abandoned house for past eleven (11) years according to neighbor at 2711 20th. Has well, but not working. (electrical wiring 2711 20th has city water - unhooked).
- 1502 Stopped at 2646 Sewell - previously sampled by Butler/Hodge.
- 1515 Return to trailer.
- 1550 - After talking with DD - Head to Collins to see if we can take

additional samples.

Check Non respondents to survey:

- 2818 City Water
2825 City Water
2831 City Water
2833 City Water
2841 Not Home
2905 City Water
2907 City Water (according to neighbor)
2917 Not Home
2935 City Water
1735 stopped at 2917 Collins - City Water
1740 stopped at 2941 Collins - Not Home
1740 Arrive at 505 Barnum
1743 Begin Purge
1803 End Purge
1805 Sample 505 Barnum collected
1810 stopped at 401 Sawyer - Not Home
406 Sawyer - City Water
407 Sawyer - City Water
418 Sawyer - City Water
412 Sawyer - City Water
1820 4 RL 505 Sawyer - Not Home
1825 stopped at 3324 7th - City Water
3325 is a vacant house

with which is for sale

1830 stopped at 3337 7th - City Water
1840 Seal sample 505 Barnum in
coolbox with Custody seals 1003
and 1004.

1845 Talk about samples with Doug -
D.D. says we've covered the
territory, Go Home.

John Lane
6/19/90

6/20/90 (Wed)

800 Arrive at trail, begin packing
up trail.

915 Stopped at SOS Sawyer - at
Wet

930 Begin Mapping

1230 Conclude Mapping - Check
Trail, leave site.

~~Wet~~
6/20/90

SOUTHEAST ROCKFORD

FIELD NOTEBOOK #2

JUNE 1990

Sample Team 2

Property of Bob Hunt C.D.M

Camp Dresser & McKee

Address 200 W Adams St 1600

Chicago IL 60606

Telephone 312-786-1313

project

1681-003-CG-GEAD

Trailer #

399-8303

This Book is manufactured of a High Grade
50% Rag Ledger Paper having a Water Resist-
ant Surface, and is sewed with Nylon Water-
proof Thread.

INDEX

4/11/90 sample team Bob Henk
Robin North
conductivity meter 00079
CDM

calibrated at 9000 RM

pH meter 00930

calibration OK RM

1705 Hamilton

Gauge Begin at 13:56

Sample location: outside spigot
SE corner home RM

@ 1445

2905 Sumer

No One Home RM

@ 1453

2819 Sumer Does not
exist

2820 Sumer Does not
exist RM

@ 1454

2823 S. 4th

RN

People are hooked
up to city water

RN

@ 2820 4th Street
people are on city
water

RN

@ 1505

2828 4th Street

RN

Sample taken from
Kitchen water Sp. got
inside

RN

Start purge 1509
Start measurement 1511
End purge 1525

RN

Sample was taken
from 3rd choice

RN

RN

1545

original Sample Site
2805 S. 4th Street does
not exist

RN

1st 2817 S. 4th Street
on city water still
using well for pool
but could not hook
to sample due to
location in basement

RN

2nd 2819 S. 4th Street

RN

Start Purge 15:51

Outdoor location -- west side
of house

RN

End sampling 16:10

RN

Robin & Norton
6/11/90

RN

RN

4/12/40

8:00

Note: We found that 2805 S. Fourth does not. The site is a place of business. Since an alternative was sampled, this site will not be sampled.

REN

9:53

Conductivity meter # 02074 is calibrated at 9000.

3007 River Boulevard

Begin purge 9:53 am 4/12/40.

Spigot located outside on west side of home. End purge

10:03. Sample time. Begin 10:20

10:55

605 South St does not

exist. Alt. alternate: 519

519 on South Street is one city water. No one was home at alternate: 527 South St.

11:19

614 South St

Begin 11:19 am for purge.

End purge 11:29. Sample time 11:36.

12:15

2820 Olvera. Mrs Jones.

Begin purge 12:15 End

purge 12:25. Begin sampling

12:32

12:38

Arrive 2901 S. Fourth. People at home. Begin purge 12:38 End purge 12:49. Sample time 12:52. This was an alternate for 2917 S. 4th

14:10

~~3011~~ 3011 4th - No well. Street

alternates. No success. 5037

4th was on city water. 3210

was not at home 826 Brooke

was not at home.

14:25

Arrive 827 Mattie. Family at home. Begin purge 14:27.

End purge 14:37. Sample

time begins 14:45

14:52

2905 Sana. Begin purge

14:52. No one at home.

End purge 15:00. Begin sampling

15:09.

15:22

409 Brooke. Debbie Shadner

at home. Begin Purge 15:22

End purge 15:32. Start

sampling 15:37

16:04

326 Brooke. Purge 16:04 begin.

End purge 16:16. Sampling

16:42 Begin 16:21.
 Arrive 202 Brooke. Family
 at home. Took samples from
 kitchen. Begin purge 16:42
 End purge 16:55. Sampling
 begins 16:55. en 16:55.
 17:38 Arrive 319 Sawyer. Begin
 purge 17:38. End purge
 17:50 Begin sampling 17:50.
 John Norton
 6/12/90

6/13/90

Conductivity Meter Calibration
 Configuration Factor 1000/990

Appointments List:

3337 8th Marveta Ellenberger (arr) ✓
 (apt) 1306 Sandy Hollow Terri Brown
 3233 7th Mary Higdon (all day)
 615 Sawyer - try to get it.

9:47 Arrive 3337 8th St. Marveta
 Ellenberger at home. Start
 Purge. Pressure pump
 turned on. Had to turn water
 off after 3 parameter
 tests. Pump resumed.
 9:14 End purge

9:15 Begin sampling.
 9:31 Arrive 3301 N 8th St. Mrs
 Ekelle not at home. Begin
 purge
 9:44 End purge. Begin sampling.
 9:57 Arrive 3237 S 8th. Henderson
 at home. Begin Purge
 10:15 End purge begin sampling.
 10:47 Arrive 3201 S 8th St.
 Mr Halligan at home. Begin
 purge.
 11:03 End purge. Begin sampling.
 11:17 Arrive 3310 Collins.
 Children at home. Begin purge
 11:32 End purge. Begin sampling.
 13:34 1306 Sandy hollow. Mrs.
 Acronia was at home. Begin
 purge. Noted that the water
 is very rust colored - almost
 brown.
 13:46 End purge. Begin sampling.
 14:30 Arrive 3238 7th Street.
 Tornado hit area 30
 minutes earlier. Begin
 purge.

14:54 End purge. Begin sampling.
 15:10 3239 Residence
 No electricity etc. Will go
 back tomorrow. Need to
 verify that they're not on city
 water
 15:44 Arrive 430 Martin.
 No one home. Begin purge.
 15:59 End purge
 16:00 Begin sampling
 16:45 2825 Collins. Big dog. No go.
 2828 ~~Collins~~ 8th St. - City Water
 16:50 Arrive 2810 S 8th People
 at home. Begin purge
 17:07 End purge
 17:08 Begin sampling
 17:40 Arrive 3305 8th - 7th St. NW
 Looked for 3305 8th St.
 No such address.
 17:44 Arrive 3245 9th St.
 Judy Bennett at home. Begin
 purge. We ran out of
 water. No electricity to run
 pump due to overvoltage. Will
 go back for it
 18:03 Arrive 3110 S 10th. Mr

Resurrection at home. Begin
 purge to 4th. Problem with
 pH meter of old measurement
 didn't register pH. End at 18th.
 C. M.

18:31 End purge

18:33 Begin sampling

19:09 End of day

Robert L. Norton

6/14/90 Calibration meter - 0207

8.30 pH meter Serial number: 00931

Calibration at 940

Conductivity factor 1000/940

appointment list:

3115 7th Amaro Villalobos 3:35 - 6:30

3110 Samer Kristy Whitman after 4:00

3009 Biddlel / Randy + Thane Johnson

after 5:30 pm

9:04 Arrive 3309 S 7th. Resident did not
 answer door. Begin purge.

9:22 End purge

9:23 Begin sampling

9:30 Arrive 3245 9th St. Resident
 at home. Begin purge. This
 is a second visit due

to a storm & subsequent
power outage 6/13/90

9:43 End purge

9:44 Begin sampling

9:58 Arrive 3239 Ashwauke.
Residents at home. Begin
purge.

10:12 End purge

10:13 Begin sampling

10:28 Arrive 3300 Fishwaukee
Begin purge. Resident at home.

10:43 End purge

10:44 Begin sampling

11:24 Arrive 3045 4th. Resident
at home. Begin purge.

11:38 End purge

11:39 Begin sampling

12:17 Arrive 2914 8th St.
Resident at home. Begin
~~Burn~~ ^{RM} purge.

12:29 End purge.

12:30 Begin sampling

14:19 Arrive 3009 Collins.
Resident arrive as we
began purge. Begin purge

14:34 End purge

14:35 Begin sampling

14:47 Arrive 2624 S. Fifth St. West
Resident not at home. Begin
purge.

15:09 End purge

15:10 Begin sampling

15:51 Arrive 3115 S. 7th. Residents
at home. Begin purge.
There was a filter, but it
was removed prior to
sampling.

16:20 Arrive 1202 Brooke. Residents
at home. Begin purge.

16:34 End purge

16:35 Begin sampling

16:57 Arrive 3110 1st St. Residents
at home. Begin purge

17:09 End purge

17:10 Begin sampling

17:23 Arrive 1317 Brooke. Resident
not at home. Begin purge

17:39 End purge

17:41 Begin sampling

18:06 Arrive 3009 Baldahh

Residents at home. Residents
are on city water, but also
have well. Will call
Jerry Brown, the landlord
at 1-393-4284 to verify.
Begin purge.

18:23 End purge

18:24 Begin sampling

19:12 Call Mrs Jerry Brown.
She said 3000 was on city
water only, and the well
was no longer being looked
up to the house. Samples
were discharged.

Robert Norton
6/14/80

5/15/90 Calibration meter: 02079

Calibrated at 9:50 pm.

pH Meter 00930

Appointments:

3210 9th June 14th AM

3202 Kishwaukee Mrs. Christel 11:30

2910 9th Cornwell Condy Kelly

10:59 Arrive 10:59 3210 9th St.

Residents at home, but
father was asleep. So

and father left message
to sample. Begin purge.

11:11 End purge

11:11 Begin sampling

Father came out & gave
other info

11:26 Arrive 3202 Kishwaukee.

Don't know well as at
home. This location was
at one time a gas station.

Begin purge

11:39 End purge

11:39 End sampling

12:02 Arrive 3038 Biddahl. Resident
is at home. Begin purge.

12:22 End purge

12:23 Begin sampling

12:37 Arrive 3141 Biddahl. Resident
not at home, but letter
allowed us to sample. Begin
purge.

12:49 End purge

12:50 Begin sampling

13:55 Arrive 3710 9th. Resident
not at home. Will sample
later.

14:00 Arrive 3122 Bildahl. Resident
not at home. This was the
second attempt. (Did not
return earlier attempt
today). Did not sample.

14:05 Arrive 3204 Bildahl. Resident
not at home. Did not
sample.

14:07 Arrive 3302 Bildahl. Resident at home.

14:25 End purge

14:26 Begin sampling.

14:45 Arrive 3338 Bildahl. Resident
at home. Begin purge.

14:59 End purge

15:00 Begin sampling.

15:35 Arrive 2900 7th St. Resident
at home.

15:36 Begin purge.

15:51 End purge

15:52 Begin sampling.

16:10 Arrive 3013 Lapey.

Mr. Barry not
available. Son called
not get home unconnected.
Question as to whether

outside apartment building
to note system. Did not sample.

16:13 Arrive 3013 Lapey. No one
home. Did not sample.

16:15 Arrive 3213 Lapey. No
one home. Did not
sample.

16:19 Arrive 3230 Lapey. Resident
at home

16:20 Begin purge

16:25 This site has been sampled
already. End purge. Did
not sample

16:49 Arrive 708 Andy Hollow

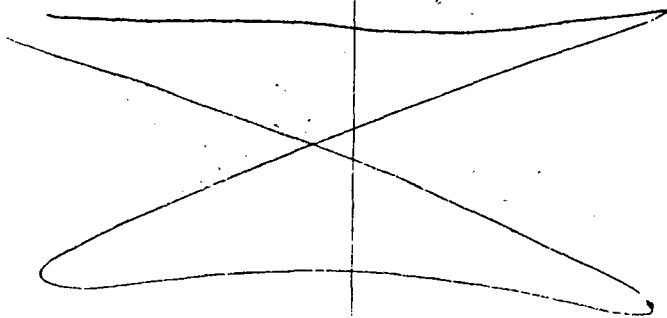
16:51 Begin purge.

17:04 End purge

17:05 Begin sampling.

Ernest H. Hutton

6/15/60



6-16-90

Weather - Rain, overcast, Mid-
70° F.

1145 Stopped at 3045 Grant
Park Blvd. Resident said
well is steel and installed
N1960 and is shallow

1146 Begin purge, outside
spigot on NW side
of house.

1156 Started Stabilization Tests

1212 End Purge

1214 Collecting Sample

1216 Collecting Field Blank Sample.

Scott & Craig do paperwork
in trailer for the rest of the
day.

Th. H. H.
6/16/90

6-17-90

1200 Arrived at 3117 River

1203 Started Purge

1232 End Purge

1233 Sample collected (Dup)

1241 Arrived at 3107 Grant
Park Blvd.

1255 Start-d Purge

1313 End Purge

1314 Collected Sample

1414 Arrived at 106 Brooke

No Body Home went

Next Door to 108 Brooke

No one home there-either

1420 Arrived at 110 Brooke
2 doors down from
106

1421 Begin Purge

1431 End purge

1440 Collect Sample

1458 Arrived at 825 Barrow
Resident stated he was
on City water.

Craig A Henry

6/13/90

Conductivity meter # 00928

Calibrated to 900 μ S/cm in 1000 calibration

fluid

DH Well # 02363

10:39 - Arrive 1630 Hamilton.

Resident at home. Sample
taken in the bathroom.

Begin purge.

10:55 End purge

10:56 Begin sampling. Noted
some suspended solids in
water.

11:20 Arrive 810 Sandy Hollow. This
is an alternative for 826
Sandy Hollow. Mrs. Valencia
was at home. She doesn't
speak english - spanish only.
Left a note for her husband
to talk to neighbor.

11:27 Begin purge.

11:39 End purge

11:40 Begin sampling.

12:15 Arrive 841 Rowlett. This
is an alternative for

843 Product. Reservoir
at home. Begin purge. 12:10
Begin purge.
12:20 Noticed that condensation
running from well
cap gas & black plastic.
(ibc?)
12:28 End purge.
12:29 Begin sampling.
12:38 Arrive 804 1st. This is
or alternate for 801 1st
which does exist. 802
does not exist either.
Reservoir at home at 804 1st.
Begin purge.
12:52 End purge.
12:53 Begin sampling.
14:00 Arrive Rock Hill Railroad
Station. Met Mr. Richard
Eick. There are two potential
wells. We will sample well
#2.
14:14 Begin purge.
14:25 End purge.
14:26 Begin sampling.

Note: 2 dominating wells & 2
potential wells in area. The
sample 1 potential well (#2).
14:50 Arrived 3325 7th for a
3:00 appl. Found that pump
had been hit by lightning
during storm & there was no
water available. No samples
were taken.
15:25 Arrive 3330 7th St. No
one home. Did not
sample.
15:30 Arrive 505 Burnum. This
was the second attempt. First
attempt was on 6/12/90. This
attempt does not appear to
be logged.
15:37 Arrive 604 Sawyer. No
one home. This is or
alternate for 611 ^{Burnum} which is
on city water. No samples taken.
15:40 Arrive 604 Burnum.
No one home so samples
taken. Alternate for 604 Burnum.

15:17 Arrive 420 Barry.
 Alcarot for 415 Hannon.
 Resident at home. Begin
 15:48 Doge purge
 16:00 End purge
 16:01 Begin sampling.
 16:15 Arrive 621 Hannon.
 Resident at home. Begin
 16:28 Doge purge
 16:29 End purge
 16:29 Begin sampling.
 18:00 Arrive 527 South St.
 On city water.
 18:10 Arrive 3104 ^{Resident} ~~1710~~ 1710 ^{at home} Did not sample.
 18:12 Arrive 3109 ^{Resident} ~~1710~~ 1710 ^{at home} Resident refused
 access. Does not want sample.
 18:13 Arrive 3110 Gen. Blvd. Resident
 at home.
 18:14 Begin purge.
 18:27 End purge
 18:29 Begin sampling.
 18:47 Arrive 405 Sawyer.
 On city water. Did not
 sample.
 18:49 Arrive 401 Sawyer.
 No one home.

18:51 Arrive 315 Sawyer.
On city water.

18:53 Arrive 505 Sawyer.
No one home. Did not ring²

18:57 Arrive 809 Sawyer.
No one home.

19:00 Arrive 815 Sawyer.
Resident says he's on
city water.

19:02 Arrive 821 Sawyer.
Resident says he's on city
water.

19:05 Arrive 619 Fitch. No one
at home.

19:08 Arrive 613 Fitch. No
one at home.

19:10 Arrive 505 Barmen.
No one at home.

19:13 Arrive 604 Barmen.
Resident says he's on city
water.

19:19 Arrive 604 Sawyer. Resident
says he's on city water.

19:22 Arrive 805 Barmen.
No one at home.

19-30 Arrived 410 Kennon.
Get sized dog - trial
to bite my ankle.
Did not sample.

19-32 Arrived 426 Kennon.
Residents say they're on
city water.

10-00 End of Day
John & Nothin

4/19/90

Calibration meter # 02255

Calibration factor:

PH meter #

10:15 2944 Bildahl. South end
of the playground. Industrial
well. Need to call before
3:30 for info on well construction,
etc;

~~10:20 Begin purge~~

10:28 Begin ~~stabilization~~ ~~etc~~
sampling

11:15 Arrive at 3013 Lapey

11:20 ^{pm} Begin purge.

11:25 ^{pm} End purge.

11:35 ^{pm} Begin sampling; Taking
45 Duplicate sample here.

12:00 End sampling -

1:30 Arrive at 2646 Swell

1:25 Begin purge, kitchen
faucet -

1:40 End purge; begin sampling

2:30 Arrive at 3017 Bildahl

2:35 Begin purge - outside spigot

2:50 Begin sampling; end purge

3:30 Arrive at 619 Fitch -
city water

3:40 Arrive at 413 Fitch -

no one home; neighbor says
they are on city water anyway

3:45 Arrive at 805 Brannum -
no one home

3:50 Arrive at 401 Sawyer -
no one home

4:00 Arrive at 505 Sawyer - no
one home.

4:05 Arrive at 809 Sawyer -
on city water.

4:05 Arrive at 410 Kennon

4:25 Begin purge.

4:12 ^{pm} Begin sampling; end
purge.

2:20 Arrived at 3330 7th -
No one home.

4:20 Also sampled for MSD
at this location -

5:00 End of day
Janet N. Bowler

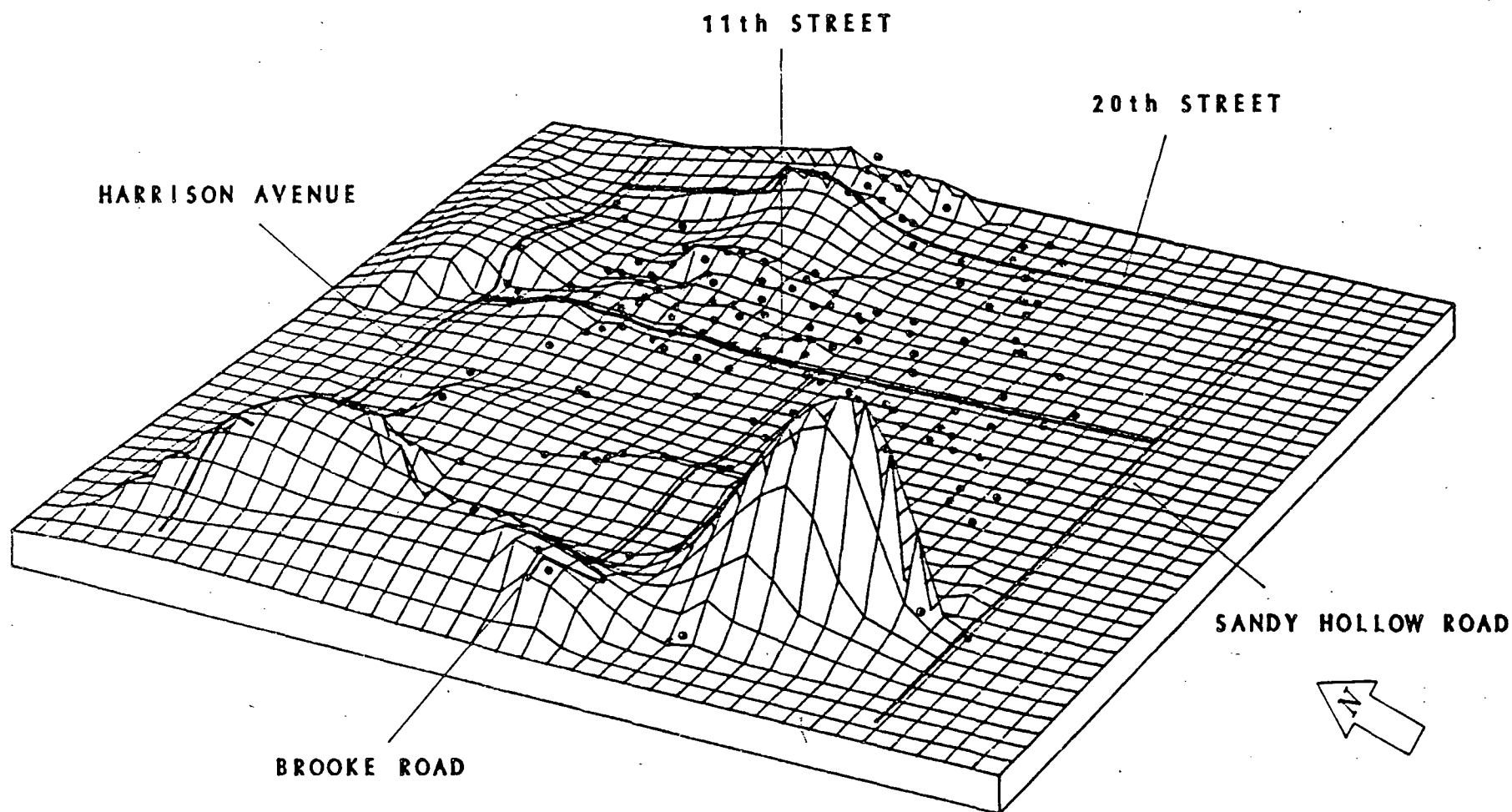
1

APPENDIX C

3-D CONTOUR PLOTS OF VOC CONTAMINANTS FOR
IEPA/USEPA DATA

3-D CONTOUR PLOT OF TCE
CONCENTRATIONS FOR
IEPA/USEPA DATA

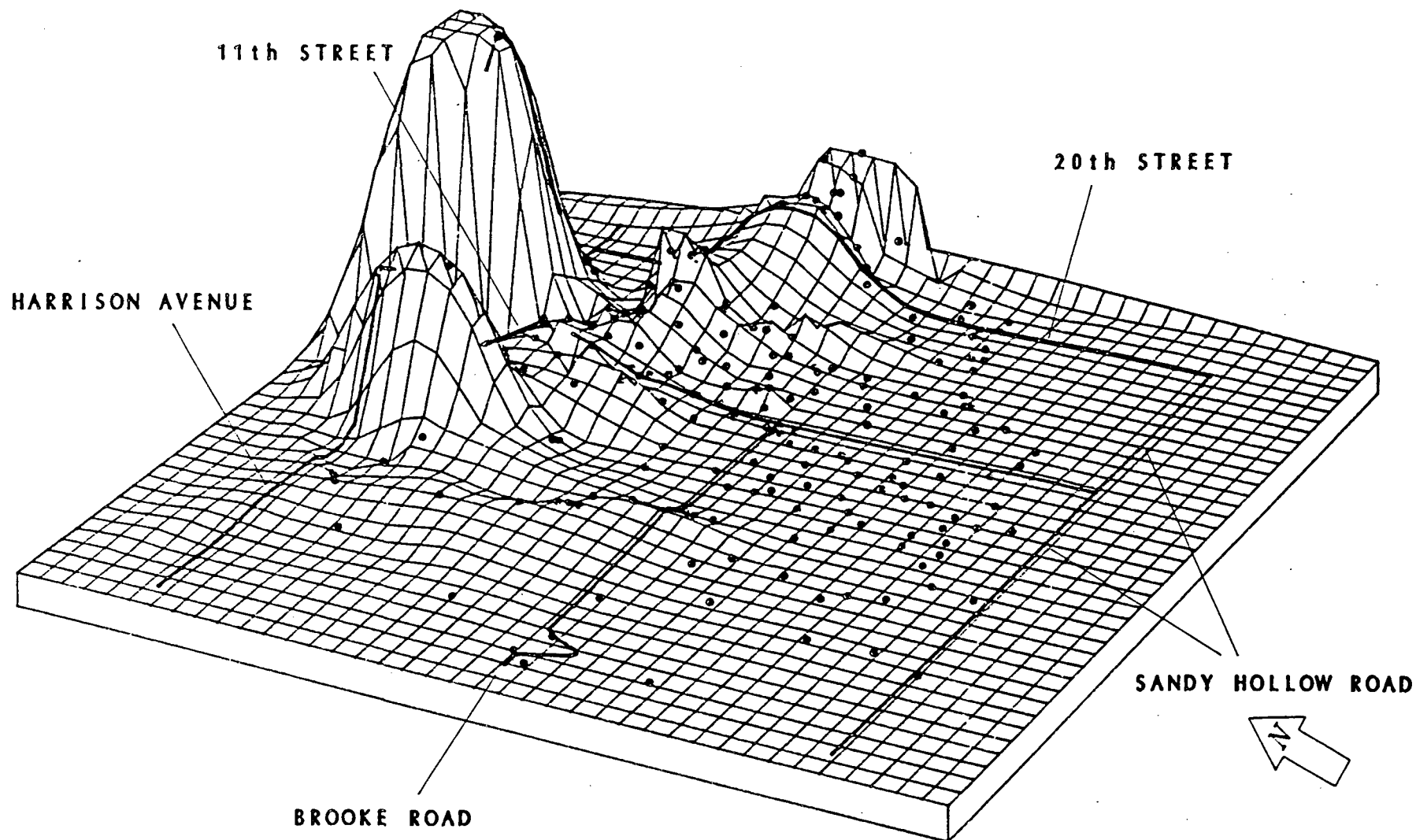
SOUTHEAST ROCKFORD PROJECT
OPERABLE UNIT



CDM
SEP., 1990

3-D CONTOUR PLOT OF 1,1,1-TCA
CONCENTRATIONS FOR
IEPA/USEPA DATA

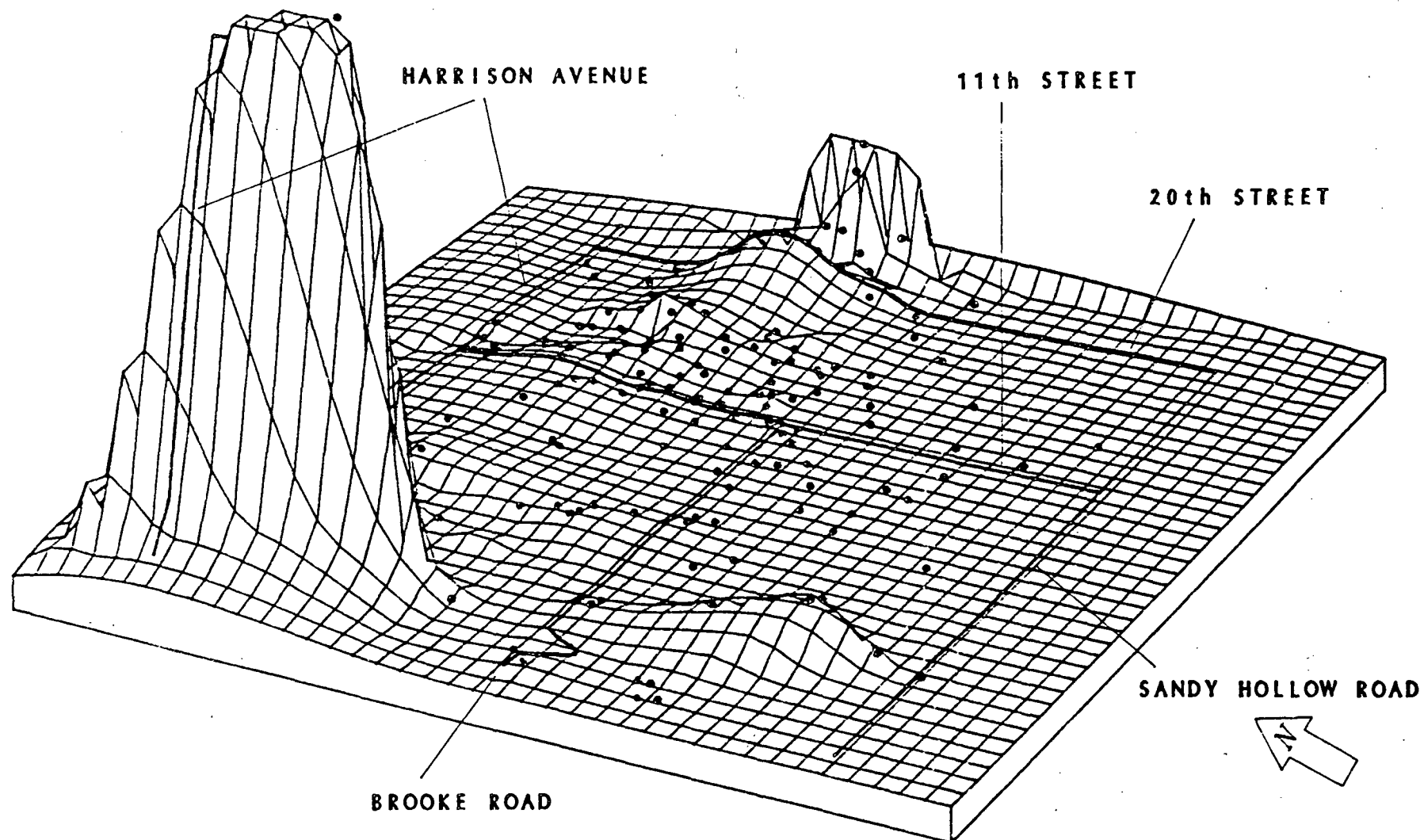
SOUTHEAST ROCKFORD PROJECT
OPERABLE UNIT



CDM
SEP., 1990

3-D CONTOUR PLOT OF *cis*-1,2-DCE
CONCENTRATIONS FOR
IEPA/USEPA DATA

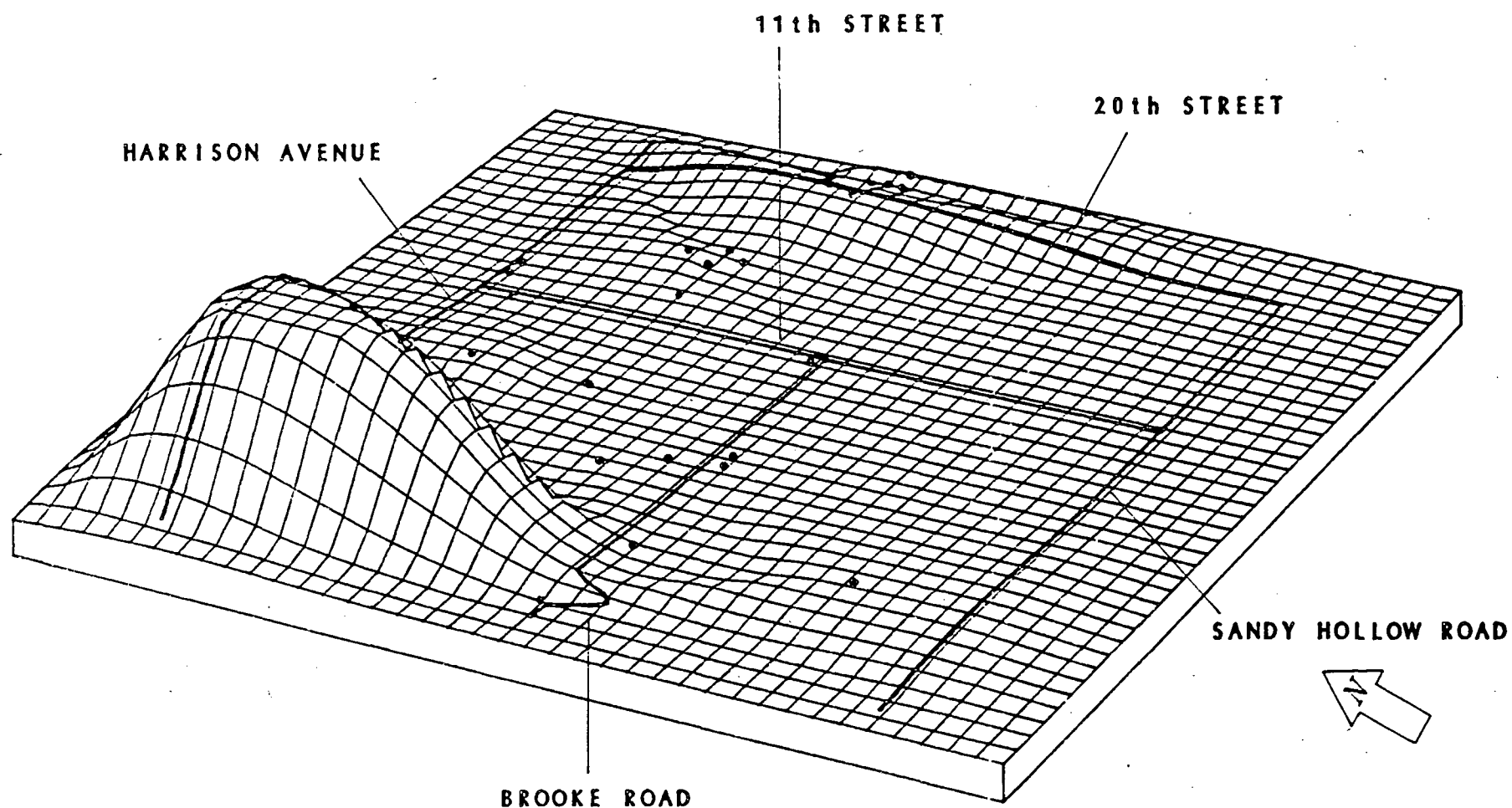
SOUTHEAST ROCKFORD PROJECT
OPERABLE UNIT



CDM
SEP., 1990

3-D CONTOUR PLOT OF trans-1,2-DCE
CONCENTRATIONS FOR
IEPA/USEPA DATA

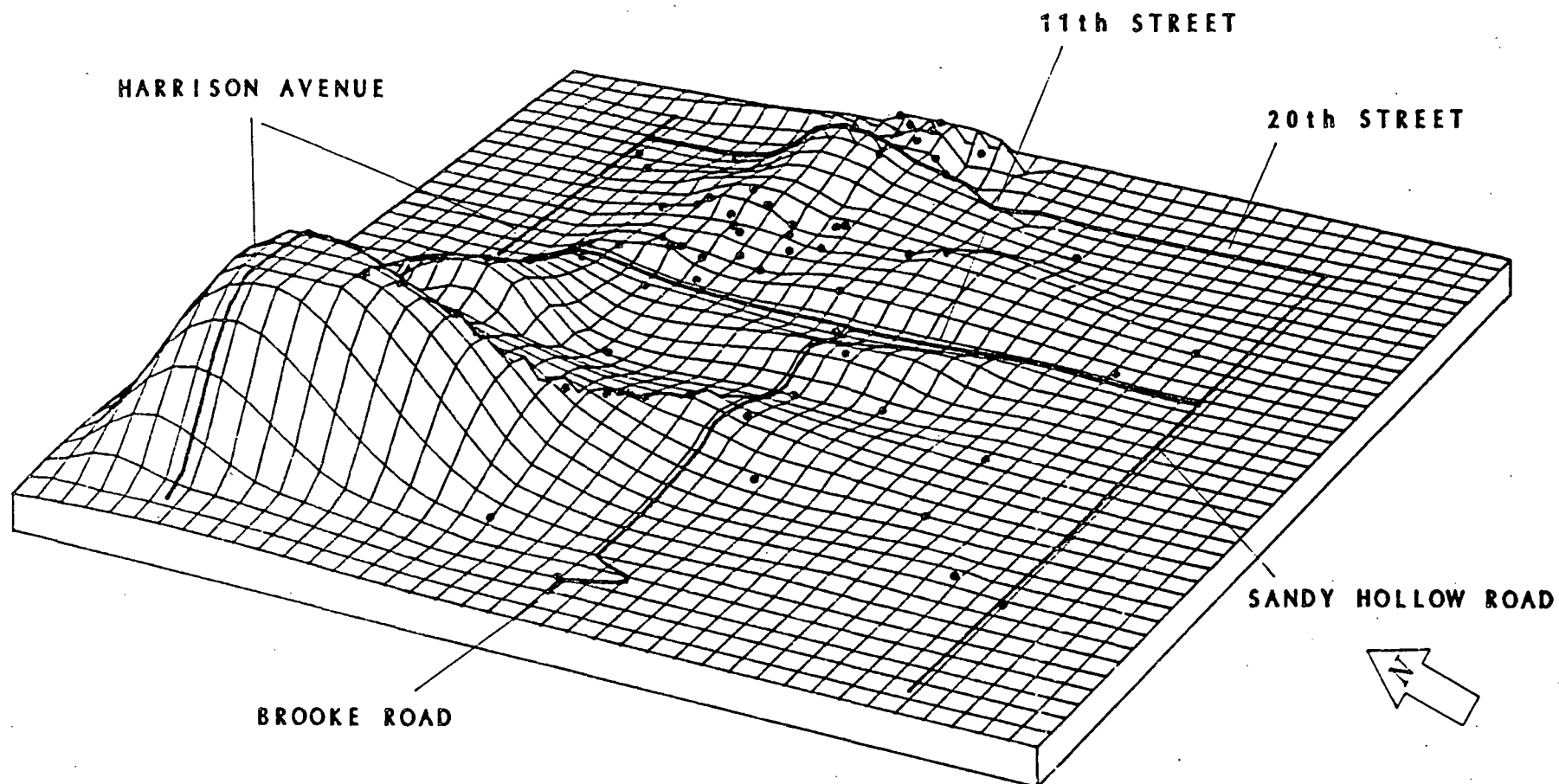
SOUTHEAST ROCKFORD PROJECT
OPERABLE UNIT



CDM
SEP., 1990

3-D CONTOUR PLOT OF 1,2-DCA
CONCENTRATIONS FOR
IEPA/USEPA DATA

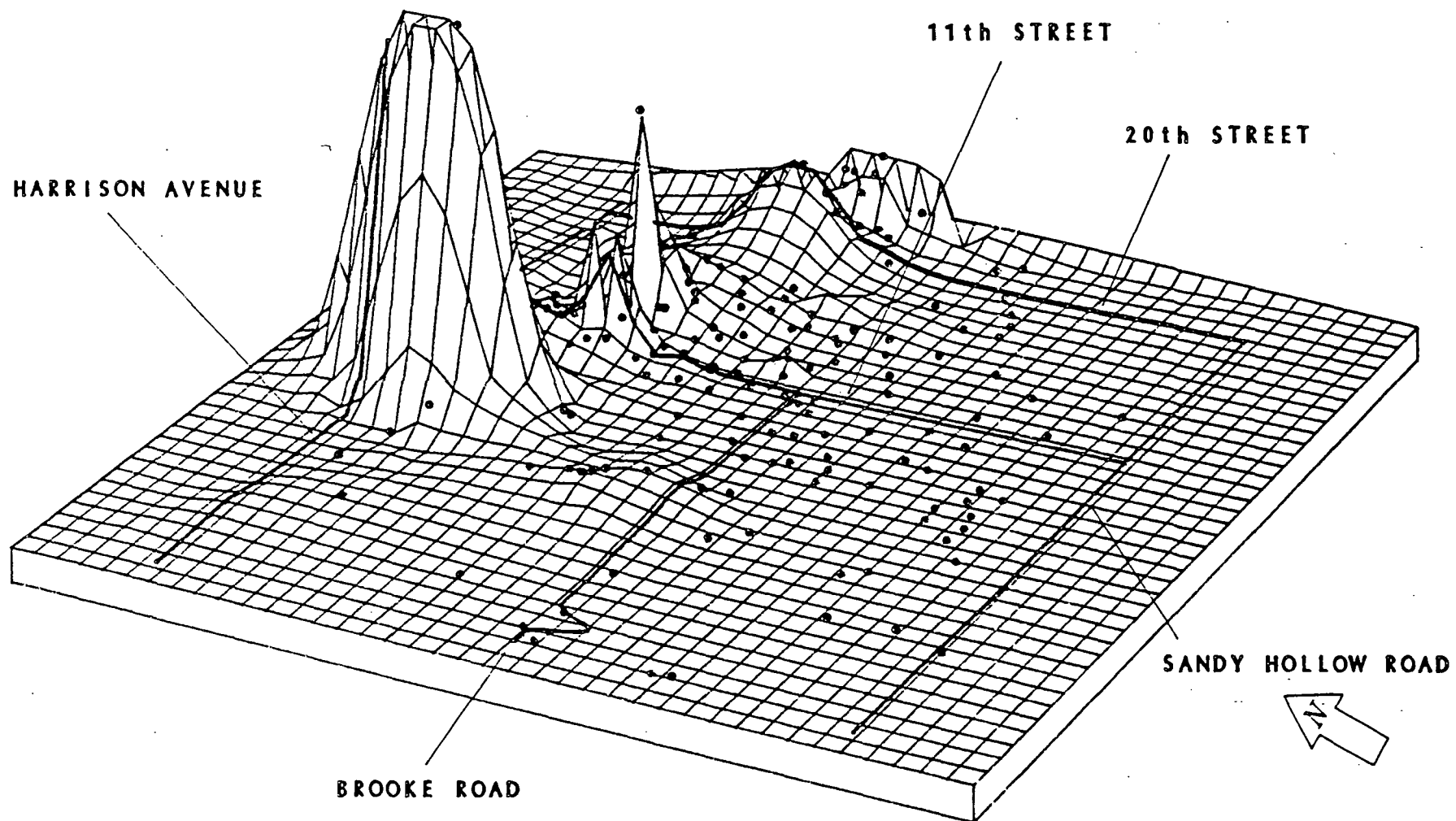
SOUTHEAST ROCKFORD PROJECT
OPERABLE UNIT



CDM
SEP., 1990

3-D CONTOUR PLOT OF 1,1-DCA
CONCENTRATIONS FOR
IEPA/USEPA DATA

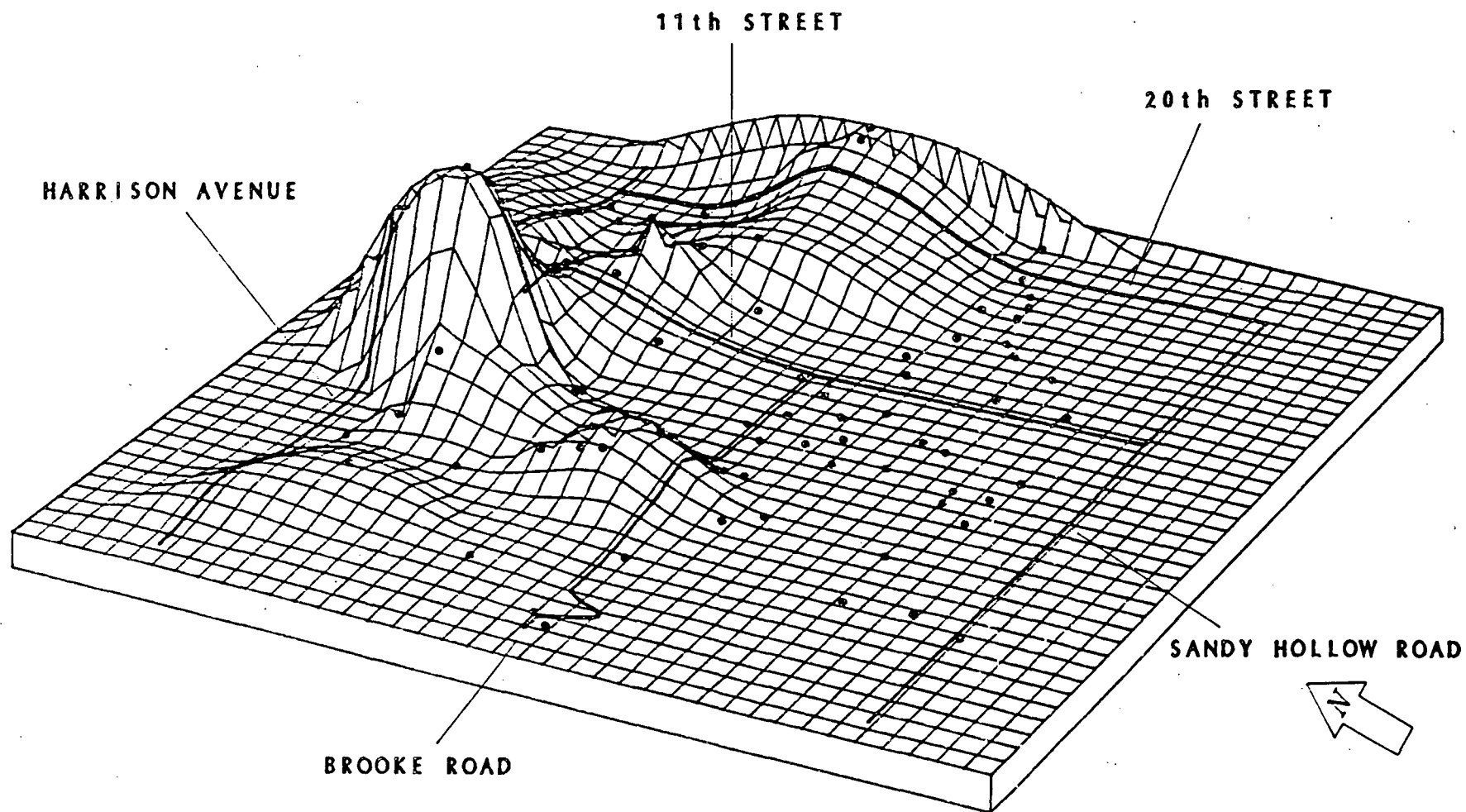
SOUTHEAST ROCKFORD PROJECT
OPERABLE UNIT



CDM
SEP., 1990

3-D CONTOUR PLOT OF 1,1-DCE
CONCENTRATIONS FOR
IEPA/USEPA DATA

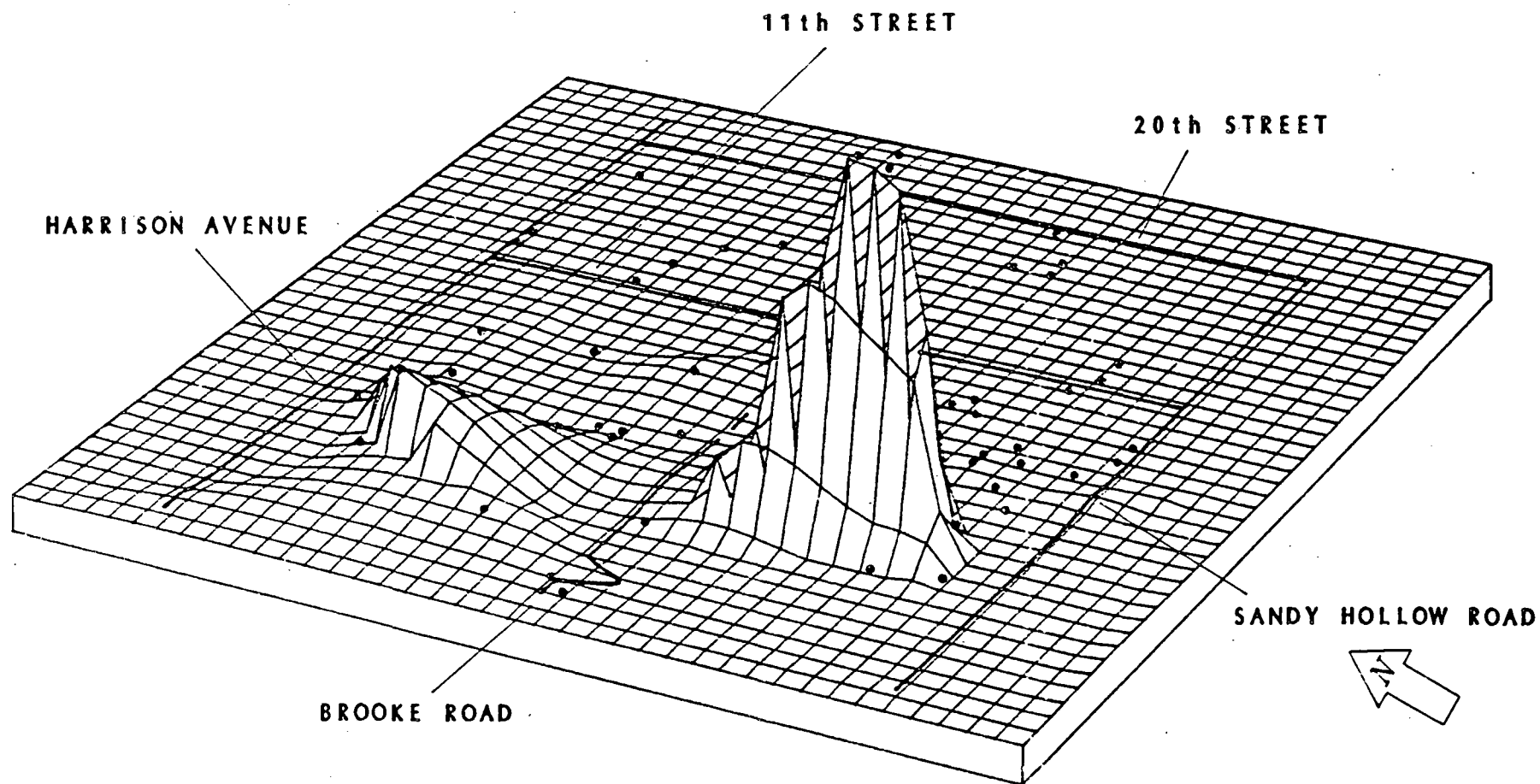
SOUTHEAST ROCKFORD PROJECT
OPERABLE UNIT



CDM
SEP., 1990

3-D CONTOUR PLOT OF PCE
CONCENTRATIONS FOR
IEPA/USEPA DATA

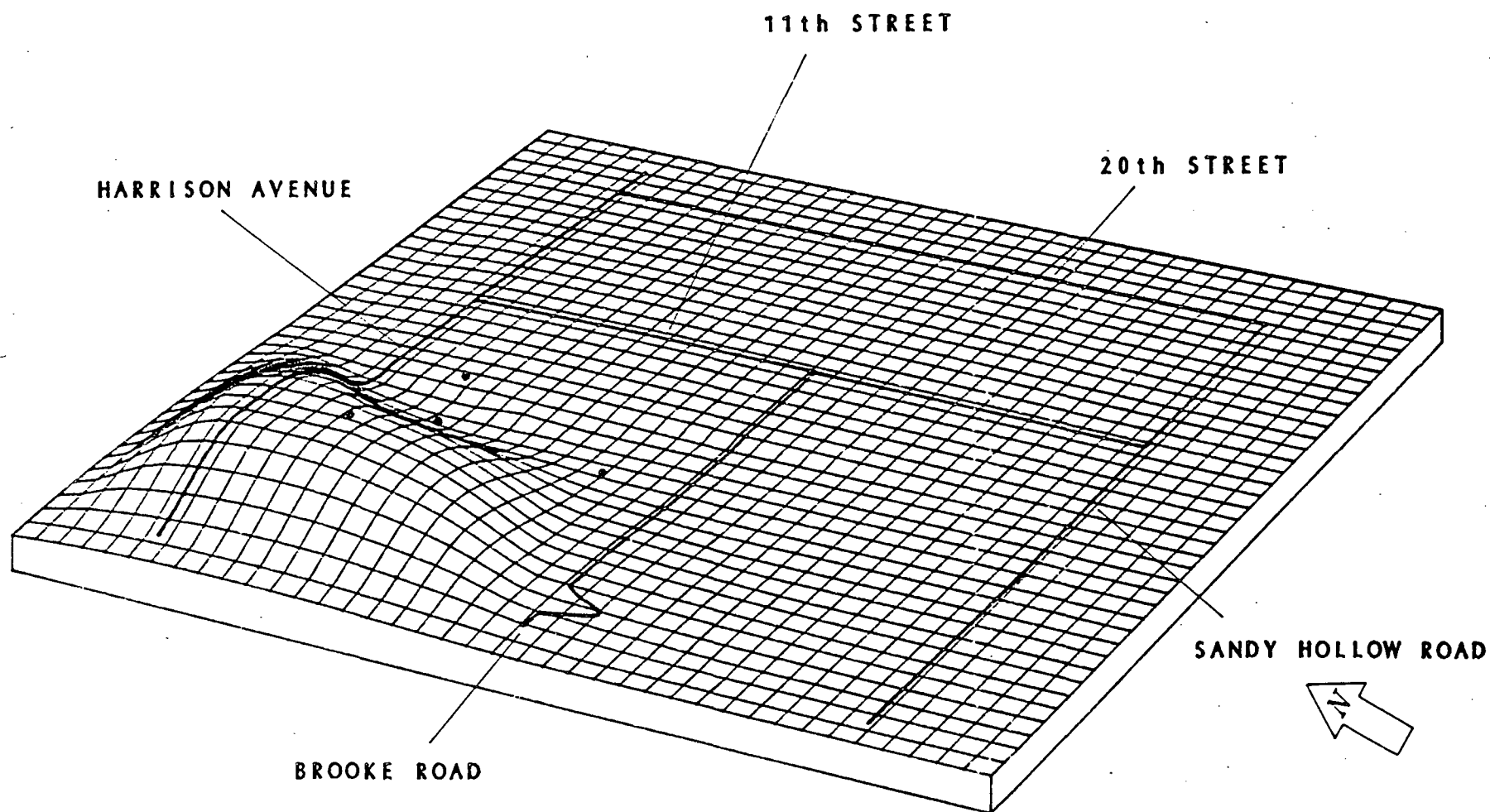
SOUTHEAST ROCKFORD PROJECT
OPERABLE UNIT



CDM
SEP., 1990

3-D CONTOUR PLOT OF VINYL CHLORIDE
CONCENTRATIONS FOR
IEPA/USEPA DATA

SOUTHEAST ROCKFORD PROJECT
OPERABLE UNIT



CDM
SEP., 1990

APPENDIX D

SPREADSHEETS USED TO CALCULATE HAZARD INDICES

S. E. ROCKFORD OPERABLE UNIT

NON-CARCINOGENIC AND CARCINOGENIC TARGET ORGAN HAZARD INDICES

Address	Contaminant	Water Concentration ug/l	Maximum Contaminant Levels (ug/l)	Chemical Hazard Index	Target Organ Hazard Index
=====					
1735 Hamilton	Carcinogens				
	Liver				
	TCE	0.8	5.00	0.16	0.16
2955 11th	Carcinogens				
	Liver				
	TCE	1.0	5.00	0.20	0.20
	Non-Carcinogens				
	Liver				
	Cis-1,2-DCE	11.00	70.00	0.20	0.20
1617 Lyran	Carcinogens				
	Liver				
	PCE	1.1	5.00	0.21	0.21
3015 11th	Carcinogens				
	Liver				
	TCE	3.3	5.00	0.66	0.66
	Non-Carcinogens				
	Liver				
	1,1,1-TCA	6.3	200.00	0.03	0.03
326 Brooks	Non-Carcinogens				
	Liver				
	Cis 1,2-DCE	14.0	70.00	0.20	0.19
=====					

S. E. ROCKFORD OPERABLE UNIT

NON-CARCINOGENIC AND CARCINOGENIC TARGET ORGAN HAZARD INDICES

Address	Contaminant	Water Concentration ug/l	Maximum Contaminant Levels (ug/l)	Chemical Hazard Index	Target Organ Hazard Index
=====					
2620 Lindale	Carcinogens				
	Liver				
	TCE	1.1	5.00	0.22	
	PCE	0.9	5.00	0.18	0.40
	Non-Carcinogens				
2412 Lindberg	Liver				
	1,1,1-TCA	1.7	200.00	0.01	0.01
	Carcinogens				
	Liver				
	TCE	1.6	5.00	0.32	0.32
2905 Saner	Carcinogens				
	Liver				
	TCE	1.7	5.00	0.34	
	PCE	1.0	5.00	0.20	0.54
	Non-Carcinogens				
	Liver				
	1,1,1-TCA	1.8	200.00	0.01	0.01
=====					

S. E. ROCKFORD OPERABLE UNIT

NON-CARCINOGENIC AND CARCINOGENIC TARGET ORGAN HAZARD INDICES

Address	Contaminant	Water Concentration ug/l	Maximum Contaminant Levels (ug/l)	Chemical Hazard Index	Target Organ Hazard Index
=====					
409 Brooke	Carcinogens				
	Liver				
	TCE	2.4	5.00	0.48	
	PCE	2.0	5.00	0.40	0.88
	Non-Carcinogens				
	Liver				
	1,1-DCE	0.6	7.00	0.09	
3301 8th	1,1,1-TCA	3.8	200.00	0.02	0.10
	Carcinogens				
	Liver				
	TCE	0.6	5.00	0.12	
	PCE	0.5	5.00	0.10	0.22
3237 8th	Carcinogens				
	Liver				
	TCE	1.0	5.00	0.20	
	PCE	1.8	5.00	0.36	0.56
3109 20th	Carcinogens				
	Liver				
	TCE	1.2	5.00	0.24	0.24
=====					

S. E. ROCKFORD OPERABLE UNIT

NON-CARCINOGENIC AND CARCINOGENIC TARGET ORGAN HAZARD INDICES

Address	Contaminant	Water Concentration ug/l	Maximum Contaminant Levels (ug/l)	Chemical Hazard Index	Target Organ Hazard Index
=====					
2801 Collins	Carcinogens				
	Liver				
	TCE	2.0	5.00	0.40	0.40
	Non-Carcinogens				
	Liver				
	1,1-DCE	1.40	7.00	0.20	
	Cis 1,2-DCE	2.1	70.00	0.03	
	1,1,1-TCA	8.6	200.00	0.04	0.27
2602 17th	Carcinogens				
	Liver				
	TCE	1.1	5.00	0.22	0.22
	Non-Carcinogens				
	Liver				
	1,1-DCE	1.0	7.00	0.14	
	Cis 1,2-DCE	2.5	70.00	0.04	
	1,1,1-TCA	29.0	200.00	0.15	0.32
2315 Harrison	Non-Carcinogens				
	Liver				
	1,1-DCE	0.9	7.00	0.13	
	1,1,1-TCA	11.0	200.00	0.06	0.18
=====					

S. E. ROCKFORD OPERABLE UNIT

NON-CARCINOGENIC AND CARCINOGENIC TARGET ORGAN HAZARD INDICES

Address	Contaminant	Water Concentration ug/l	Maximum Contaminant Levels (ug/l)	Chemical Hazard Index	Target Organ Hazard Index
=====					
3310 Collins	Carcinogens				
	Liver				
	TCE	0.9	5.00	0.18	0.18
	Non-Carcinogens				
	Liver				
3120 17th	1,1,1-TCA	2.5	200.00	0.01	0.01
	Carcinogens				
	Liver				
	TCE	2.0	5.00	0.40	0.40
	Non-Carcinogens				
3102 16th	Liver				
	1,1,1-TCA	2.8	200.00	0.01	0.01
	Carcinogens				
	Liver				
	TCE	3.1	5.00	0.62	
	PCE	0.7	5.00	0.14	0.76
	Non-Carcinogens				
	Liver				
	1,1-DCE	1.1	7.00	0.16	
	Cis-1,2-DCE	1.5	70.00	0.02	
	1,1,1-TCA	7.0	200.00	0.04	0.21
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S. E. ROCKFORD OPERABLE UNIT

NON-CARCINOGENIC AND CARCINOGENIC TARGET ORGAN HAZARD INDICES

Address	Contaminant	Water Concentration ug/l	Maximum Contaminant Levels (ug/l)	Chemical Hazard Index	Target Organ Hazard Index
=====					
430 Martin	Carcinogens				
	Liver				
	TCE	4.8	5.00	0.96	
	PCE	4.7	5.00	0.94	1.90
	Non-Carcinogens				
	Liver				
	Cis 1,2-DCE	2.0	70.00	0.03	0.03
3110 10th	Carcinogens				
	Liver				
	TCE	2.9	5.00	0.58	0.58
2619 Lindberg	Carcinogens				
	Liver				
	TCE	3.20	5.00	0.64	
	PCE	0.60	5.00	0.12	0.76
	Non-Carcinogens				
	Liver				
	1,1-DCE	0.8	7.00	0.11	
	Cis 1,2-DCE	1.1	70.00	0.02	0.13
3245 9th	Non-Carcinogens				
	Liver				
	1,1,1-TCA	1.9	200.00	0.01	0.01
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S. E. ROCKFORD OPERABLE UNIT

NON-CARCINOGENIC AND CARCINOGENIC TARGET ORGAN HAZARD INDICES

Address	Contaminant	Water Concentration ug/l	Maximum Contaminant Levels (ug/l)	Chemical Hazard Index	Target Organ Hazard Index
=====					
3239 Kishwaukee	Carcinogens				
	Liver				
	TCE	1.8	5.00	0.36	0.36
3302 Kishwaukee	Carcinogens				
	Liver				
	PCE	1.2	5.00	0.24	0.24
	Non-Carcinogens				
	Liver				
	1,1,1-TCA	2.5	200.00	0.01	0.01
3029 Collins	Carcinogens				
	Liver				
	TCE	0.6	5.00	0.12	0.12
2624 5th	Carcinogens				
	Liver				
	TCE	2.8	5.00	0.56	
	PCE	2.1	5.00	0.42	0.98
	Non-Carcinogens				
	Liver				
	Cis 1,2-DCE	14.0	70.00	0.20	0.20

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S. E. ROCKFORD OPERABLE UNIT

NON-CARCINOGENIC AND CARCINOGENIC TARGET ORGAN HAZARD INDICES

Address	Contaminant	Water Concentration ug/l	Maximum Contaminant Levels (ug/l)	Chemical Hazard Index	Target Organ Hazard Index
=====					
3237 11th	Carcinogens				
	Liver				
	TCE	0.9	5.00	0.18	
	PCE	0.7	5.00	0.14	0.32
	Non-Carcinogens				
	Liver				
	1,1,1-TCA	2.1	200.00	0.01	0.01
1202 Brooke	Carcinogens				
	Liver				
	TCE	1.6	5.00	0.32	0.32
	Non-Carcinogens				
	Liver				
	1,1,1-TCA	4.5	200.00	0.02	0.02
3115 7th	Carcinogens				
	Liver				
	TCE	1.0	5.00	0.20	
	PCE	1.3	5.00	0.26	0.46
	Non-Carcinogens				
	Liver				
	1,1,1-TCA	3.0	200.00	0.02	0.02

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S. E. ROCKFORD OPERABLE UNIT

NON-CARCINOGENIC AND CARCINOGENIC TARGET ORGAN HAZARD INDICES

Address	Contaminant	Water Concentration ug/l	Maximum Contaminant Levels (ug/l)	Chemical Hazard Index	Target Organ Hazard Index
=====					
3137 Marshall	Carcinogens				
	Liver				
	TCE	1.8	5.00	0.36	0.36
	Non-Carcinogens				
1317 Brooke	Liver				
	1,1,1-TCA	3.4	200.00	0.02	0.02
	Carcinogens				
	Liver				
1726 Pershing	TCE	2.3	5.00	0.46	0.46
	Non-Carcinogens				
	Liver				
	1,1,1-TCA	0.5	200.00	0.00	
	Cis 1,2-DCE	4.7	70.00	0.07	0.07
	Carcinogens				
	Liver				
	TCE	2.1	5.00	0.42	0.42
	Non-Carcinogens				
	Liver				
	1,1,1-TCA	4.1	200.00	0.02	0.02

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S. E. ROCKFORD OPERABLE UNIT

NON-CARCINOGENIC AND CARCINOGENIC TARGET ORGAN HAZARD INDICES

Address	Contaminant	Water Concentration ug/l	Maximum Contaminant Levels (ug/l)	Chemical Hazard Index	Target Organ Hazard Index
=====					
1637 Pershing	Carcinogens				
	Liver				
	TCE	1.7	5.00	0.34	0.34
	Non-Carcinogens				
	Liver				
	1,1,1-TCA	3.1	200.00	0.02	0.02
3210 9th	Carcinogens				
	Liver				
	TCE	2.0	5.00	0.40	0.40
	PCE	2.40	5.00	0.48	0.88
	Non-Carcinogens				
	Liver				
	1,1,1-TCA	3.2	200.00	0.02	0.02
3129 Horton	Carcinogens				
	Liver				
	TCE	0.8	5.00	0.16	0.16
3202 Kishwaukee	Non-Carcinogens				
	Liver				
	1,1,1-TCA	3.4	200.00	0.02	0.02

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S. E. ROCKFORD OPERABLE UNIT

NON-CARCINOGENIC AND CARCINOGENIC TARGET ORGAN HAZARD INDICES

Address	Contaminant	Water Concentration ug/l	Maximum Contaminant Levels (ug/l)	Chemical Hazard Index	Target Organ Hazard Index
=====					
3038 Bildahl	Carcinogens				
	Liver				
	TCE	1.6	5.00	0.32	0.32
	Non-Carcinogens				
	Liver				
3141 Bildahl	1,1,1-TCA	2.9	200.00	0.01	0.01
	Carcinogens				
	Liver				
	TCE	2.2	5.00	0.44	
	PCE	2.3	5.00	0.46	0.90
3213 Lapey	Non-Carcinogens				
	Liver				
	1,1,1-TCA	3.8	200.00	0.02	0.02
	Carcinogens				
	Liver				
	TCE	1.4	5.00	0.28	0.28

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S. E. ROCKFORD OPERABLE UNIT

NON-CARCINOGENIC AND CARCINOGENIC TARGET ORGAN HAZARD INDICES

Address	Contaminant	Water Concentration ug/l	Maximum Contaminant Levels (ug/l)	Chemical Hazard Index	Target Organ Hazard Index
=====					
1713 Harrison	Carcinogens				
	Liver				
	TCE	3.3	5.00	0.66	
	PCE	0.7	5.00	0.14	0.80
	Non-Carcinogens				
	Liver				
	1,1-DCE	1.5	7.00	0.21	
	Cis 1,2-DCE	5.8	70.00	0.08	
	1,1,1-TCA	33.0	200.00	0.17	0.46
3138 Lapey	Carcinogens				
	Liver				
	TCE	2.7	5.00	0.54	0.54
	Non-Carcinogens				
	Liver				
	1,1,1-TCA	4.0	200.00	0.02	0.02
3101 Lapey	Carcinogens				
	Liver				
	TCE	1.8	5.00	0.36	0.36
	Non-Carcinogens				
	Liver				
	1,1,1-TCA	2.8	200.00	0.01	0.01
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S. E. ROCKFORD OPERABLE UNIT

NON-CARCINOGENIC AND CARCINOGENIC TARGET ORGAN HAZARD INDICES

Address	Contaminant	Water Concentration ug/l	Maximum Contaminant Levels (ug/l)	Chemical Hazard Index	Target Organ Hazard Index
=====					
3126 Collins	Carcinogens				
	Liver				
	TCE	2.0	5.00	0.40	0.40
	Non-Carcinogens				
3122 Bildahl	Liver				
	1,1,1-TCA	2.9	200.00	0.01	0.01
	Carcinogens				
	Liver				
3206 Bildahl	TCE	2.6	5.00	0.52	0.52
	Non-Carcinogens				
	Liver				
	1,1,1-TCA	4.2	200.00	0.02	0.02
3206 Bildahl	Carcinogens				
	Liver				
	TCE	1.9	5.00	0.38	0.38
	Non-Carcinogens				
3206 Bildahl	Liver				
	1,1,1-TCA	2.7	200.00	0.01	0.01
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S. E. ROCKFORD OPERABLE UNIT

NON-CARCINOGENIC AND CARCINOGENIC TARGET ORGAN HAZARD INDICES

Address	Contaminant	Water Concentration ug/l	Maximum Contaminant Levels (ug/l)	Chemical Hazard Index	Target Organ Hazard Index
=====					
3101 9th	Carcinogens				
	Liver				
	TCE	2.1	5.00	0.42	0.42
	Non-Carcinogens				
	Liver				
	1,1,1-TCA	3.8	200.00	0.02	0.02
3072 8th	Non-Carcinogens				
	Liver				
	1,1,1-TCA	21.0	200.00	0.11	0.11
3138 8th	Carcinogen				
	Liver				
	TCE	2.5	5.00	0.50	
	PCE	1.0	5.00	0.20	0.70
	Non-Carcinogens				
	Liver				
	1,1,1-TCA	3.9	200.00	0.02	0.02
3109 8th	Carcinogens				
	Liver				
	TCE	1.8	5.00	0.36	0.36
	Non-Carcinogens				
	Liver				
	1,1,1-TCA	3.3	200.00	0.02	0.02
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S. E. ROCKFORD OPERABLE UNIT

NON-CARCINOGENIC AND CARCINOGENIC TARGET ORGAN HAZARD INDICES

Address	Contaminant	Water Concentration ug/l	Maximum Contaminant Levels (ug/l)	Chemical Hazard Index	Target Organ Hazard Index
=====					
1630 Hamilton	Carcinogens				
	Liver				
	TCE	1.9	5.00	0.38	0.38
	Non-Carcinogens				
	Liver				
841 Roosevelt	1,1,1-TCA	3.0	200.00	0.02	0.02
	Carcinogens				
	Liver				
	TCE	0.9	5.00	0.18	
	PCE	2.4	5.00	0.48	0.66
804 Taft	Non-Carcinogens				
	Liver				
	1,1,1-TCA	2.4	200.00	0.01	0.01
	Carcinogens				
	Liver				
	PCE	1.1	5.00	0.22	0.22
	Non-Carcinogens				
	Liver				
	1,1,1-TCA	1.4	200.00	0.01	0.01
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S. E. ROCKFORD OPERABLE UNIT

NON-CARCINOGENIC AND CARCINOGENIC TARGET ORGAN HAZARD INDICES

Address	Contaminant	Water Concentration ug/l	Maximum Contaminant Levels (ug/l)	Chemical Hazard Index	Target Organ Hazard Index
=====					
3333 Kishwaukee	Carcinogens				
	Liver				
	TCE	1.2	5.00	0.24	0.24
	Non-Carcinogens				
	Liver				
3014 Saner	1,1-DCE	0.7	7.00	0.10	0.10
	Carcinogens				
	Liver				
	TCE	0.7	5.00	0.14	
	PCE	2.8	5.00	0.56	0.70
1101 Brooke	Non-Carcinogens				
	Liver				
	1,1,1-TCA	2.0	200.00	0.01	0.01
	Carcinogens				
	Liver				
	TCE	0.7	5.00	0.14	0.14
	Non-Carcinogens				
	Liver				
	1,1,1-TCA	2.2	200.00	0.01	0.01
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S. E. ROCKFORD OPERABLE UNIT

NON-CARCINOGENIC AND CARCINOGENIC TARGET ORGAN HAZARD INDICES

Address	Contaminant	Water Concentration ug/l	Maximum Contaminant Levels (ug/l)	Chemical Hazard Index	Target Organ Hazard Index
=====					
3013 Lapey	Carcinogens				
	Liver				
	TCE	2.2	5.00	0.44	
	PCE	0.6	5.00	0.12	0.56
	Non-Carcinogens				
	Liver				
	1,1,1-TCA	4.3	200.00	0.02	0.02
2646 Sewell	Carcinogens				
	Liver				
	TCE	0.7	5.00	0.14	0.14
	Non-Carcinogens				
	Liver				
	1,1-DCE	1.2	7.00	0.17	
	1,1,1-TCA	39.0	290.00	0.20	0.37
3017 Bildahl	Carcinogens				
	Stomach				
	1,2-DCA	1.6	100.00	0.02	0.02
	Non-Carcinogens				
	Liver				
	Cis-1,2-DCE	0.1	70.00	0.00	0.00
505 Barnum	Non-Carcinogens				
	Liver				
	TCE	0.5	5.00	0.10	0.10
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S. E. ROCKFORD OPERABLE UNIT

NON-CARCINOGENIC AND CARCINOGENIC TARGET ORGAN HAZARD INDICES

Address	Contaminant	Water Concentration ug/l	Maximum Contaminant Levels (ug/l)	Chemical Hazard Index	Target Organ Hazard Index
=====					
3122 16th	Carcinogens				
	Liver				
	TCE	1.3	5.00	0.26	0.26
	Non-Carcinogens				
	Liver				
	1,1,1-TCA	2.9	200.00	0.01	0.01